The Harveian Oration

DELIVERED AT THE

ROYAL COLLEGE OF PHYSICIANS

On Monday, Oct. 18th, 1886,

BY F. W. PAVY, M.D., F.R.S.

MR. PRESIDENT, COLLEAGUES, AND GENTLEMEN,—My instructions are explicit. "Once every year," said Harvey, in the deed of conveyance of his patrimonial estate as a gift to the College, "someone shall make an oration publickly in the College, wherein shall be a commemoration of all the benefactors of the said College by name, and what in particular they have done for the benefit of the said College, with an exhortation to others to imitate those benefactors and to contribute their endeavours for the advancement of the Society, according to the example of those benefactors, and with an exhortation to the Fellows and Members of the said College to search and study out the secrets of nature by way of experiment." Such are the directions, framed nearly two centuries and a half ago, which bring us together here to-day. Himself a munificent benefactor in various ways to the College, and an ardent explorer of nature, Harvey desired that others should be incited to follow in the path that he had trodden. He was not content to quit life without taking steps to encourage others in succeeding generations to pursue the objects which he so strove by his own endeavours to promote. By this Oration which he established, and which, notwithstanding the lapse of time that has occurred, may be said, I think, still to elicit as much reverential consideration within the College as at any period, an annual reminder is afforded that keeps his desire alive before us. Honoured by the invitation of our President this year to deliver the Oration, I am here to perform the task. Whilst highly appreciating the mark of distinction conferred, I must, however, confess, looking at the able hands through which the duty of orator has passed, and the eminence in the profession of many present, that I do not approach the undertaking without a deep sense of the responsibility attaching to it.

The first portion of the duty which has been marked out in such precise terms by the founder of this Oration to be performed is to commemorate the benefactions that have fallen into the possession of the College since the last Oration was delivered. It is gratifying to me to feel that I do not come empty-handed for the occasion before you.

A new benefaction, which promises to be as useful as it is munificent, has to be recorded, and it belongs to me to mention the manner in which the College has decided to dispose of a recently acquired increased income derivable from one of its ancient benefactions. My immediate predecessor alluded to the augmentation which the income from the endowment for the Croonian lectureship has recently undergone. Dr. Croone, a Fellow of our College in the seventeenth century, left behind him a plan for the establishment of a lectureship, but made no provision in his will for its support. His widow, who afterwards married Sir Edwin Sadlier, bequeathed property in the City of London for carrying out the plan that had been thus fruitlessly framed. It was a gracious act on the part of this lady, and one which showed a noble reverence for her first husband's wishes, to take upon herself in such a manner to give effect to his intention. Through the expiration of a ninety-nine years' building lease, the College has come into possession of an income from the Lady Sadlier bequest which raises the amount available for the Croonian lectureship from £10 to £200 per annum. Those present are aware that the consideration of how to turn this twenty-fold increase to best account to meet the objects of the trust, and at the same time secure the advancement of knowledge in a direction likely to produce beneficial results, has anxiously engaged the attention of the Fellows. After passing through the hands of a committee, the subject was discussed at three College meetings, at the last of which, the Comitia held in June, a resolution expressed in the following terms was passed: "That there shall be one or more Croonian lecturers appointed by the College, who shall be required to deliver lectures on one or more subjects in anatomy, physiology, and pathology, with a view to the prevention, control, and cure of disease; and that the College shall devote the funds derived from the Croonian Trust (1) to the payment of such lecturer or lecturers, and (2) to the contribution of such sums as the College may think fit towards the promotion of scientific investigation on the subject of the lectures." Thus has the College determined to dispose of the increased income that has fallen into its hands through the chance influence that has been wrought by time upon the value of the endowment. The sum to be annually appropriated from the Croonian Trust is now of considerable magnitude; and let it be hoped that the fruit yielded by its application may equal in usefulness what I am sure it is desired by the College it should do. Should this be attained, the benefits issuing from the benefaction will immeasurably surpass those that could have been anticipated either by Dr. Croone in planning his design for the lectureship, or Lady Sadlier, his noble-minded widow, in providing an endowment for giving to it a practical shape.

The new benefaction has come into the possession of the College since the commencement of the present year. Not quite recently, but at the same time not long ago, there was to be frequently seen at the College one who, though strikingly quiet and unostentatious in manner, made his presence strongly felt amongst us whenever matters were under consideration bearing on public health. Born and educated in Edinburgh, Gavin Milroy, to whom I refer, became a Fellow of this College in 1853. Never engaged in hospital or private practice, and his mind early drawn to the consideration of questions touching on the prevention of the extension of disease, he devoted himself to the hygienic part of our professional art, and became an authority of high repute on social matters affecting health. In such estimation, indeed, was his knowledge held that he was employed by Government for carrying out certain special inquiries, and afterwards was granted a life pension of £100 a year in recognition of the services he had rendered. He lived to the ripe age of eighty-one, and what I have said of his life bears upon his benefaction to the College. In his will he said: "I bequeath to the President and Council of the Royal College of Physicians in London for the time being the sum of £2000 (being a sum of £1743 which I received from the Colonial Office as remuneration for my services in 1871 and 1872, whilst engaged in my mission to the West Indies, with £257 which I have added thereto), for the purpose of founding and continuing a yearly lectureship of three or four lectures on State Medicine and Public Hygiene, and upon trust to invest the same in the public funds, or in such other investment as they shall in their absolute discretion think fit, and upon trust to pay the income thereof to a lecturer to be appointed from time to time." In another part of his will he directed that the sum bequeathed should be paid free of legacy duty, and further gave the silver inkstand which had been presented to him by the College in 1868 in acknowledgment of his services as honorary secretary to the Committee on Leprosy, and certain books specifically mentioned by him. A thorough master in the branch of study to whizh he devoted himself, no one was in a better position than Dr. Milroy for suggesting the direction in which the attention of those who may hereafter be appointed to carry out his beneficent design may most advantageously be given; and thoughtfully, and doubtless it will be found most usefully, he has left behind him an elaborate code of suggestions for the consideration of the Council of the College in its administration of the trust with which it has been charged. As a preface to these suggessions, he remarks: "I would take leave to record some thoughts that have occurred to my mind concerning the subject-matters which, as it seems to me, might be most profitable for investigation at the present time, and possibly for some years to come. I am far from seeking to limit, or in any measure to impede, the free decision of the Council in respect of the conduct and arrangement of the lectures themselves; my only desire being how most usefully to promote the advancement of medical science along with the interests of philanthropic benevolence and of social welfare." Could any wiser or more useful form of bequest than this of Dr. Milroy have been bestowed? The College is no longer itself in need of

the aid required in former times, but funds placed at its disposal for promoting the acquirement of knowledge constitute a benefaction that confers upon it the power of doing good in a manner standing most in harmony with the wants of the present age. Further, it may be said, the kind of knowledge sought to be advanced by the terms of the Milroy endowment is just that which is most ripe for encouragement at the present moment, and that also which holds a foremost rank in promise of benefit of a wide nature being conferred by its improvement.

I have ventured to consider that such a benefaction as this which it has devolved upon me to commemorate is the best kind of benefaction the College could now receive. Probably Harvey had in his mind especially the encouragement of the bestowal of benefactions of a nature calculated in a more direct way to benefit the College. If we carry our thoughts—and, looking at the position in which the College stands at the present time, it requires a little effort to do so—I say, if we carry our thoughts to what the College was in Harvey's day, we realise that needs then existed which have now disappeared. We have no longer occasion to give ourselves concern about the corporate welfare of the College in the manner that was formerly called for. Founded "wtih a view to the improvement and more orderly exercise of the art of physic, and the repression of irregular, unlearned, and incompetent practitioners," the College for a long time possessed but very meagre accommodation. A gift by our founder and first president, Linacre, of the front portion of his private house, "comprising a parlour below and a chamber above, to be used as a council room and library," constituted for many years the only local habitation belonging to the College—a modest beginning indeed for the edifice in which we are now assembled. On the announcement towards the end of the sixteenth century by Dr. Caldwell and Lord Lumley of their intention to found a surgery lecture, and to endow it with £40 a year, the Fellows determined to appropriate £100 out of the common stock (and this was nearly all the money the College possessed) to enlarge the building and make it more ornamental and better suited for the meeting of their body and the celebration of the lectures. We next learn that just before Harvey entered upon his tenure of the Lumleian lectureship, contributions from its members and some others were forthcoming, which enabled the College to take more suitable premises, to which it removed. Subsequently, during the troubled times of the civil wars, the College was brought to the greatest straits. In consequence of the heavy taxes imposed and the other exactions made, it became unable for a time to pay its rent to the Dean and Chapter of St. Paul's. To add to its distress, its premises were now condemned, as part of the property of the Church, to be sold by public auction. One of our Fellows, Dr. Hamey, whose name deserves to be ever remembered, became, however, their purchaser, and afterwards gave them to his colleagues. Harvey himself contributed munificently to the substantial welfare of the College. A few years before his death, "the Fellows," we are told, "attended at the College when the doors were thrown open, and Harvey, receiving his assembled colleagues in the new museum, made over to them on the spot the title-deeds and his whole interest in the building," which, says Aubrey, was a noble building of Roman architecture, containing "a great parlour, a kind of convocation room for the Fellows to meet in below, and a library above." This gift preceded that of his patrimonial estate with which the establishment of this Oration is connected. From these particulars, drawn from that excellent work, the "College Roll," from the pen of our esteemed colleague, Dr. Munk, it is brought home to us how vastly altered the position of the College now is; and I think I shall stand in accord with the opinion of others when I say that I consider the best kind of benefaction that can be in the present age bestowed is such as I have had to commemorate to-day—one that confers upon the College the power of contributing towards making us, through the acquisition of increased knowledge, more efficient agents in the exercise of our calling.

The next part of my duty is to exhort the Fellows and Members of this College "to search and study out the secrets of nature by way of experiment." These are the directions I am to follow, and they give me a wide field to select a course of procedure from. The kind of exhortation I shall employ will consist in placing before you a view of the method of work which Harvey himself adopted, and then as an incentive to follow his example, I will display some of the fruit yielded by recent research conducted upon the lines of his procedure.

The object to be promoted is the acquirement of additional knowledge. It is an old but true saying that knowledge is power. We accept the doctrine, which comes to us in definite shape from no less ancient an authority than Aristotle, that there is no such thing as innate knowledge—that knowledge of every kind has to be acquired, and that it is based upon perceptions reaching the mind through the senses. Harvey thus epitomises what was said by Aristotle respecting the manner in which the knowledge appertaining to science is acquired: "The thing perceived by sense remains; from the permanence of the thing perceived results memory; from multiplied memory, experience; and from experience, universal reason, definitions, and maxims or common axioms." In its elementary form, knowledge consists of simple inferences drawn in a direct manner from impressions. A child once burnt afterwards shuns the fire. From the impression received an inference is framed which forms the foundation for future action. The same kind of operation determines the conduct of the lower animals. By mental action these simple inferences may be raised into or give rise to knowledge of a higher kind. This is what for science is required to be done. The exercise of the intellectual faculties must be brought into operation, in order that what we acquire through perception may be shaped into the knowledge that it is desired to obtain. The object in science is to discover the facts and laws of nature; and to apply the intellect advantageously for the purpose, there must be some systematic course, some method or art of reasoning, adopted. The system employed up to Harvey's time was the Aristotelian, or syllogistic—a system which, whilst being well adapted for affording proof upon any particular point, is ill adapted for promoting the advance of knowledge. When through the major and minor premisses of a syllogism I draw a conclusion, a point is proved, but no real addition is made to our stock of knowledge. For instance, when in accordance with the rules of the syllogistic art I say—"All men are mortal: Thomas is a man, therefore Thomas is mortal," I start with the general proposition in the major premiss that "all men are mortal," and arrive at the conclusion, through the minor premise, that a particular individual is mortal. A certain attribute—mortality—is asserted to be possessed by a class. A member of the class must also possess the attribute, and this is all the information that my syllogistic conclusion has given me—that the individual named Thomas possesses the attribute of mortality, which belongs as a general character to the group of individuals of which he is a member. The two premises of the syllogism already consist of established truths, and for a syllogism to be valid there must be nothing contained in the conclusion beyond what is asserted in the premisses. The train of reasoning, therefore, is not adapted to lead us to the acquirement of new knowledge. The essence, indeed, of the system consists in proceeding from generals to particulars. The major premiss, with which we start, is, in reality, a general proposition, containing knowledge which has been acquired—not, it is true, by the methodical application of induction, but nevertheless after the manner of induction—by observation repeated and confirmed until the thing has come to be accepted as an established truth.

Harvey was shrewd enough to perceive that such a system of reasoning, which had continued in use up to the period in which he lived, did not assist in the disclosure of the secrets of nature. He says: "The method of investigating truth commonly pursued at this time is to be held as erroneous and almost foolish, in which so many inquire what others have *said*, and omit to ask whether the things themselves be actually so or not; and single universal conclusions being deduced from several premises, and analogies being thence shaped out, we have frequently mere verisimilitudes handed down to us instead of positive truths." Men's minds must have evidently now become occupied with the new system of philosophy set forth by Lord Bacon, in his "Novum Organum," or "true directions concerning the interpretation of nature." One of the aphorisms of this work clearly exhibits the difference between the new system and the old: "There are and can be only two ways of searching into and discovering truth. The one flies from the senses and particulars to the most general axioms, and from these principles, the truth of which it takes for settled and immovable, proceeds to judgment and to the discovery of middle axioms. The other derives axioms from the senses and particulars, rising

by a gradual and unbroken ascent, so that it arrives at the most general axioms last of all." Upon system, or plan of procedure, a great deal depends: look at any undertaking carried out under a good system and a bad. The ancients were a long time in learning the right system to adopt, but it was indeed a great day for science when the method of reasoning by induction was introduced. Starting with particulars or facts which are collected from nature by observation and experiment applied in every available way, it proceeds step by step in the process of generalising until the largest and widest propositions are obtained. From the proposition which has been formulated out of, it may be, only a few facts, advance is made with the aid of other facts to propositions of a more and more general character. The unknown is brought into the domain of the known, and as this domain increases, not only is the position acquired strengthened, but at the same time rendered more advantageous for the attainment of further extension. Thus the march onwards proceeds, and when some general law of nature—like, for instance, gravitation, the correlation of the physical forces, or, even, with a more limited bearing, reflex spinal action—is discovered, a gain is made which, through reflected influence, has the effect of at once immensely enlarging and perfecting the understanding. Truly, it may be said, the explorer by the inductive method does not know whither he may be led. He dedicates himself

"To unpathed waters—undreamed shores,"

and follows simply the direction indicated to be taken by what happens to be revealed. Guided entirely by the facts disclosed by observation and experiment, he brings the instrumental agency of the mind as a reasoning power to bear upon them, and draws from them that which adds to the store of knowledge already possessed. He seeks for facts and interprets their meaning as they come before him. This was the course pursued by Harvey. Instead of giving himself up, as others had done before him, to arguing out conclusions from accepted axioms, he struck out into the hitherto untrodden path of inquiry—that of induction—and sought knowledge by a direct appeal to nature through the medium of observation and experiment. "It were disgraceful," he says, "with this most spacious and admirable realm of nature before us, did we take the reports of others upon trust, and go on coining crude problems out of these, and on them hanging knotty and captious and petty disputations. Nature is herself to be addressed; the paths she shows us are to be boldly trodden."

In the discovery of the circulation Harvey applied the principles of induction and argued upon them in a strictly logical way. He showed himself to be a good and careful observer, judged even by the standard set forth in the following words of John Stuart Mill on the process of observing. "The observer," says Mill, "is not he who merely sees the thing which is before his eyes, but he who sees what parts that thing is composed of. To do this well is a rare talent. One person, from inattention, or attending only in the wrong place, overlooks half of what he sees. Another sets down much more than he sees, confounding it with what he imagines or with what he infers. Another takes note of the *kind* of all the circumstances, but, being inexpert in estimating their degree, leaves the quantity of each vague and uncertain. Another sees, indeed, the whole, but makes such an awkward division of it into parts, throwing things into one mass which require to be separated, and separating others which might more conveniently be considered as one, that the result is much the same, sometimes even worse than if no analysis had been attempted at all. It would be possible to point out what qualities of mind and modes of mental culture fit a person for being a good observer; that, however, is a question not of logic, but of the theory of education, in the most enlarged sense of the term."

The experiments which Harvey conducted on the arteries and veins to assist him in his inquiry were founded upon a well-devised plan. It may be said of experiment that it affords the means of varying the circumstances, and thus aids immensely the acquirement of knowledge by induction. In the application of the faculties to discovery the mind asks itself what facts are needed to assist in the establishment of a correct conclusion. The fact may be looked for amongst the varied instances presented by nature; or, by an artificial arrangement of circumstances, the required instance may be made—in other words, experiment may be had recourse to for supplying what is wanted. In the one case we get our fact by observation from the variations in the circumstances spontaneously furnished by nature; in the other we obtain it from experiment, which possesses the great advantage over observation not only of furnishing us with a much greater number of variations than is to be found naturally presented, but also of enabling us to produce the precise form of combination or variation which is needed for our purpose.

Harvey in a true sense adopted the Baconian system of interrogating nature by appeal to observation and experiment and drawing conclusions out of the facts presented, and yet it is evident that the "Novum Organum" was not published till after the discovery of the circulation was made. Bacon's new method of conducting research and discovering the truths of nature was placed before the public in 1620. Harvey's work on the circulation, "Exercitatio Anatomica de Motu Cordis et Sanguinis Animalibus," was not published till 1628, but it has been generally allowed that his discovery was made known in his first course of Lumleian lectures delivered at the College in 1616; and, thanks to the meritorious labours of a committee of the College, this has now been rendered open to verification by the very interesting volume just prepared and on the point of being issued, containing a reproduction in autotype form of his original lecture notes in his own handwriting. Harvey, then, must have been throughly in the van of progress taking place in his day; and, further, the contemporaries of Bacon must have been acquainted with the new system of philosophy before the "Novum Organum" was published.

Harvey's discovery established a new departure in physiology. Without a knowledge of the circulation nothing really could be known about the various operations taking place within us. It is hard, with the knowledge now possessed, to realise the state existing at the time the circulation was discovered. The passage of blood from the right to the left side of the heart had, it is true, already been recognised, but it was taught that the blood went to the lungs for their nutrition, and "to be elaborated and subtilised by the reception of a spirit from the air in inspiration and the exhalation of a fuliginous matter in expiration." The heart and arteries were supposed to be the seat of the vital spirit, and the liver to be the fountain from whence the body was supplied with blood through the veins, in which there was believed to be a to-and-fro current, a flux and reflux, that was compared to the ebb and flow of the tide in the classic straits of Euripus. Truly, indeed, may it be asserted that our ancestors stand in the twofold position of our parents with respect to age, our children with respect to knowledge.

It was not without opposition that Harvey's views were received; and the high position in his profession he had attained did not suffice to prevent his escape from the effect of the prejudice against innovation entertained by the multitude. Aubrey tells us he had "heard him say that after his book on the circulation of the blood came out he fell mightily in his practice; 'twas believed by the vulgar that he was crack-brained, and all the physicians were against him." Harvey lived, however, to see his doctrine generally accepted. But such are the vicissitudes of time that in our day an attempt has been made to deprive him of the title of discoverer of the circulation and give it to an Italian physician, Cesalpino, because it has been found that a few words of what he wrote can be construed into suggesting that a conception of the circulation existed in his mind. Most ably and successfully have my predecessors in the delivery of this oration, Sir Edward Sieveking and Dr. George Johnson, combated the claim that has been put forward on behalf of Cesalpino, and maintained the position of Harvey.

Science prepares the ground for the exercise of art. The one—science—is concerned with knowledge as knowledge; the other, with the application of it to a practical end. Our art—our *raison d'être* as members of the medical profession—is to apply the knowledge of medical science to the prevention of, cure or mitigation of, and alleviation of the sufferings from disease—to secure, in fact, for man as natural a passage through life as happens to be attainable. We cannot prevent death. Lord Bacon, in his essay "De Morte," said—

"Æque enim est naturale hominibus mori, ac nasci."

True, it is as natural to die as to be born; and nature's laws must be complied with. Our aim is to avert premature death. A certain power, given to us at starting upon our

existence, carries us on, under exposure to the proper conditions or influences for keeping this power going. But, in the exercise of its action, although for a while it shows no signs of a failing tendency, yet assuredly it progresses towards exhaustion and ultimate extinction. Accompanying, and doubtless dependent on, the declining power, and assisting in leading to its becoming extinguished, there is an advancing deterioration of the material organism in which the power is manifested. Such is what is natural; but many circumstances contribute to avert the natural, the ordinary, course being run. The power given to start with may not be equal to the standard, and the issue of generation may in consequence present itself under a weak and ill-developed form, easily falling a victim to influences that there ought to be strength enough to resist. There may be a taint in the power derived by generation from the parents—something transmitted by inheritance which may give rise to a tendency to the development of some structural deviation from the natural state, or to the performance of one or other functional operation of life, in a manner that does not conform with what may be said to be strictly natural. It is a law of nature for the offspring more or less closely to assume the likeness of the parent, and likeness in the shape of what is wrong may be assumed as well as in the shape of what is right.

Quitting the quality of the power given to us to start with, we are next dependent upon the influences derived from the external or surrounding conditions to which we become exposed. Light, air, what we eat and drink, or what in any way gets into the system, temperature, exercise of mind and body—in short, the conditions under which we live—all exert their influence in favouring or otherwise a natural passage through life. Within us, operations forming a part of the operations of nature proceed, but these operations are influenced by—owe their activity, indeed—to the surrounding conditions, and thus it is that upon these surrounding conditions depends whether a natural course is run or not. Under the same law these surrounding conditions may exert a modifying influence in this or that particular direction upon the operations that are proceeding, and by long continuance in force may lead to the establishment of a more or less modified state as a part of our nature in accordance with the Darwinian principle of natural selection. This matter—the modifications for good or bad wrought in our nature by the influence of external conditions—embraces a wide field of study, and comprehends nothing less than the possession of a knowledge of the varied operations, with the laws determining them, going on around us, in order that we may understand the manner in which they are brought about. It is a vast subject, but the mind of man has already done much, and there is reason to think will do much more, towards penetrating it; and as with the amount of knowledge acquired power is possessed—that is, the power of arranging conditions or operations so as to render them subservient to the production of a desired effect, man stands in the position of an increasingly powerful agent in the realm of nature. Must not the mind itself, then, through which this is accomplished, be reckoned as a power—a great power amongst the powers of the universe? In our special department as medical practitioners, it falls to us to apply the power which knowledge gives us towards preventing unnatural conditions of the body from being allowed to become developed, and towards bringing the unnatural back into the natural state—in fact, towards aiding in carrying life on in a natural manner through its ordinary term of existence. In every branch of study relating to our art immense progress has in recent years been made. It is true, all gain in knowledge must be regarded as contributing to the improvement of our position, but at the same time it is not permitted to us to see in each gain a direct applicability to a useful end. I will, however, refer to one issue of research derived from the labours of the present day which has already yielded much good and useful fruit, and gives promise of yielding much more.

Belonging to the realm of living nature there are small organisms, the existence of which we must have remained unconscious of in the absence of the aid of the microscope. The organisms to which I refer are rod-like in form and of such minute dimensions as to require a good magnifying power to enable them to be brought into view, and some of them also, to be rendered visible, require to be stained with a colouring agent. These bodies are known by the name of bacteria or bacilli, and, whilst some difference of opinion has existed, it is generally thought that they are organisms belonging to the vegetable kingdom. There is nothing in their appearance to strike the observer that they possess any significance, and yet by recent research it has been found that they play a most important part as constituents of the living world. The character from which they mainly derive importance is the facility and rapidity with which they become developed. This contributes to their wide distribution and counterbalances their minuteness.

It is only recently that the life of these organisms has been known to produce effects of any particular interest to us. Some while ago they gave rise to a discussion upon the subject of spontaneous generation, which was carried on throughout several years, with at times a considerable amount of warmth. The fact had been observed that when a liquid containing organic matter was exposed to the air, it more or less quickly, according to the prevailing temperature, became tenanted with an immense number of these micro-organisms. The question arose whether they sprang into existence from the fortuitous concourse of disuniting atoms of the organic matter, or whether they were derived by parentage from pre-existing organisms. Spallanzani, who lived in the eighteenth century, performed the experiment of placing the organic liquid in a vessel, hermetically sealing it, and afterwards exposing it to a temperature sufficient to destroy the life of any living matter present, and found that under these circumstances no organisms became developed. It was suggested that the presence of air might be a necessary condition for the re-arrangement of the elements of the organic substance into living matter, and through this being excluded in Spallanzani's experiment it might be thereby rendered fallacious. Schulze and Schwann came upon the field just about fifty years ago, and devised an experiment which stands invested with historical renown. They placed the organic liquid in a flask and boiled it to effect the destruction of any life that might exist. The flask was closed, but provided with tubes through which air could be made to reach the interior, and, as the essential part of the experiment, the air thus made to enter was transmitted either through sulphuric acid or a heated tube for the purpose of killing anything of a living nature that might happen to be present. Thus circumstanced, and under the frequent renewal of air in contact with its surface, the liquid remained for any length of time free from living organisms; but when the mouth of the flask was unclosed and its contents were freely exposed to the air, they were soon found to be swarming with living beings. The natural conclusion to be drawn from such an experiment is that it goes far towards absolutely establishing that the air contains the germs of living organisms, and that it is these that constitute the source of the microscopic organisms found to become developed in the presence of organic matter, which some have contended take rise spontaneously. This view is supported by the researches of the present day, and nothing that would bear the scrutiny of strict investigation has ever been adduced against it. It stands at the foundation of our modern notions regarding the *rôle* played by bacilli, and thus occupies a position of weighty importance with reference to the matter.

Both upon dead and living organic matter these organisms exert an influence productive of wide and strikingly marked results. Although known to become developed in decaying animal and vegetable infusions, it was not until recently suspected that they stood in any other relation than as a simple growth in a suitable medium; certainly it was not suspected that they held the position that is now assigned to them. Whilst life exists in any particular being, there is a round of actions carried on, a round of changes occurring in a definite and fixed direction, giving rise to the phenomena that are observed. When death occurs another set of changes is seen to set in. The affinities and operations formerly in play, which held the elements together in specific combinations and led to the occurrence of a specific line of change, ceasing to prevail, the conditions become free for new affinities to come into force and produce new combinations, and with this for a new line of changes to occur. Such was until recently looked upon as furnishing a representation enabling us to understand the *rationale* of the passage of a substance into a state of putrefaction. Instead, however, of regarding the elements of organic compounds as simply splitting asunder as a result of the removal of the influence of life to form others generated by new affinities starting into existence after death, we are brought by the evidence now before us to look upon putrefaction as

the issue of the influence exerted by the living organisms to which our attention is being given. However much, viewed superficially, the process may appear to arise from spontaneous disintegration, no such disintegration takes place unless there is the necessary agency present to excite it, and this agency consists of living organisms comparable in the effect they produce to the living cells of yeast, which have the power of exciting the transformation of sugar by what is styled fermentation. It is only, then, in the presence of the organisms in question that putrefactive decomposition occurs. Exclude them in any way that may be chosen, and the organic product, whether milk or any other article, remains without undergoing change.

The step from the action exerted by bacteria as agents exciting the decomposition of organic products to that which brings them before us as a source of disease is not a great one. In the one case they lead to change which would not otherwise occur, and in the other they disturb the order of changes naturally taking place, and thus induce an abnormal state; and although there is nothing in their morphological characters to show the reason, different trains of phenomena—in other words, different diseases—are occasioned by different kinds of bacilli. It is in the group of disorders falling under the denomination of contagious or infectious febrile diseases—a form of disease, taken in its entirety, constituting one of the greatest scourges besetting the human race—that we are brought most manifestly into contact with bacilli. Very diverse views have been held at different times regarding the nature and mode of production of the affections belonging to the class in question, but by recent research it may be considered as having been rendered evident that they depend upon the introduction of bacilli into the system, to the growth and multiplication of which are due the phenomena that are observed. Opinion has for some time past been advancing to this point. Our countryman, Dr. William Budd, devoted special attention to cholera and typhoid fever, and in 1849 stood prominently forward in urging that a living microscopic organism constituted the source of the diseases of their kind. For awhile, however, fever germs were only talked about, without their reality being regarded as established. The discussion at the Pathological Society in 1875 on the germ theory of disease marks an epoch in the history of this subject, and shows that up to this time much progress had not been made towards settling the question; for, whilst some spoke in favour of the theory, no less an authority upon fevers than the late Dr. Murchison expressed himself strongly against it. Since then, knowledge has advanced in great strides; and now, not only has the fact been ascertained that different kinds of organism productive of different diseases exist, but through the indefatigable researches of Pasteur and others the distinguishing form and life history of certain of these organisms have been clearly made out. Placed under suitable conditions, it has been found that they can be reared or cultivated artificially, and one of the most marked and important characters belonging to them is the enormous extent of self-propagating power they possess. This accounts for the rapid spread that is observed to take place of an infectious disease, if allowed to progress without controlling measures being brought to bear upon it.

We have to deal, then, with something that lives and grows by virtue of a power pertaining to itself. Permit this living growth—this parasite, in fact—to become dispersed and to enter the system of a living person, and presuming it has lodged upon a soil supplying suitable conditions for its development, it will thrive and multiply and give rise to a series of phenomena which the physician has no power to arrest. Once the bacillus is implanted and the disease established, all that the physician can do is to see that the patient has fair play—that he is kept under the most favourable conditions for battling successfully against his enemy. What is to be philosophically aimed at, however, is to check the spread, to bar the transmission of the parasite from one person to another, by attacking it outside the body; and this, with the application of the proper measures of disinfection, can with facility be done, but naturally the facility of preventing extension stands in proportion to the degree of limitation at the time existing. The spark of fire is with the greatest ease extinguished, but let it kindle into flame, and in proportion as the flame spreads the difficulty becomes greater to get the conflagration under. This is one way in which the attack upon the bacillus may be made, and the ravages of disease restrained. Another way, by quite a different line of tactics, presents itself; and the knowledge of this is due to the researches that have been recently conducted. The vulnerable point to which I am alluding lies not in connexion with the bacillus itself, but with the condition of the medium upon which it may chance to fall. It has been found that the parasite requires virgin soil for its growth. This observation stands in harmony with the result of common experience as regards disposition to contract infectious disease. It has been from remote times generally known that a person who has passed through one attack of an infectious disorder is not liable to the same extent as before to become affected on exposure to contagion. An influence has been exerted giving rise to more or less protection being afforded against a recurrence of the disease. Now, it happens that by certain means the bacillus may be brought into such a weakened state as only to occasion, when introduced into the system of an animal, an effect of a mild nature, not dangerous to life, instead of the ordinary form of disease; but the effect produced—and this is the great point of practical importance—is as protective against subsequent attack as the fully developed disease.

There are two methods by which attenuation in virulence of the disease-producing organism may be brought about—by conducting their artificial cultivation in a particular way, and by transmission through the system of an animal differing in nature from that in which the disease naturally occurs. When the chain of discoveries reached the point of showing that bacilli could be reared outside the body in an artificial soil or cultivating medium, a great advance was made towards obtaining a full knowledge about them, as it placed the observer in a more favourable position for the successful prosecution of research by enabling him to vary and control his conditions in a manner that could not otherwise have been effected. Although much has been accomplished, it must be said much still remains to be done. In the case of a few bacilli the life history has been pretty clearly made out. Cultivated in a certain way they retain their virulence, no matter through how many successions they pass. The last product in a series of successive cultivations is as virulent as the parent stock. By modifying the conditions under which the cultivation is carried on, the successive products of descent may be gradually weakened until they become harmless. Such being the case, any desired degree of attenuation may be obtained, and by inoculation with a virus brought down to the proper strength the non-fatal affection may be occasioned which gives immunity from subsequent liability to take the disease under exposure to contagion. The knowledge thus acquired has been already practically turned to account upon a large scale for checking the ravages of that exceedingly fatal disease amongst cattle known as anthrax, or splenic fever, and through the success attained much sacrifice of life has been averted.

If this can be accomplished for one disease—and more than one can be mentioned,—is there not ground for believing that means will be found for placing others of the class in the same position? Attempts are being made in this direction. All eyes throughout the civilised world are, indeed, at the present moment fixed upon the work of Pasteur in Paris with respect to hydrophobia. It would be a great achievement for this frightful disease to be brought under subjection, and certainly the results that have been obtained appear to give hopes that an approach to something of this kind has been arrived at. Looking at the nature of the disease, there is nothing inconsistent with its being dependent upon a bacillus, or microbe, as Pasteur calls it. On the contrary, owing its origin as it does, when occurring naturally, to inoculation with the poisoned secretion of an affected animal, and taking into view the facts that have been learnt in connexion with its transmission by artificial inoculation, evidence points to such in reality being the case. If due to a bacillus, why may not this bacillus be open to attenuation in the same manner as that of anthrax? if thus open to attenuation, why not susceptible of producing a non-fatal form of affection? and if this condition has been produced and passed through, why should not protection be thereby given against the subsequent development of the disease as a result of the primary inoculation from the bite of the rabid animal? Such a train of reasoning is quite legitimate, and for the application of the principle of action to which it leads there is this advantage on the side of hydrophobia, that from the prolonged period usually taken for incubation after the introduction of the poison in the ordi-

nary way, time is given for the artificial inoculations by subcutaneous injection to produce their effect and to render the system refractory to the further development of disease. I have been an eye-witness of Pasteur's work. It is from the nerve centre, the seat from which the symptoms of the disease start, that he obtains his virus. Employed for inoculation in a fresh state, it produces a fatal disease, and the disease has been transmitted successively on through a number of animals, with the result that the last affected animal yields as strong a virus as the first. Kept in a pure dry air, attenuation advances, and after a certain time the nerve centre loses its disease-producing power. Used for inoculation at a given period of preservation, it produces an effect which renders an animal resistant to the influence of inoculation with the virus in a fresh state, and Pasteur contends that it acts similarly when the virus has been introduced in the ordinary way. The treatment of persons bitten by rabid animals by inoculation with attenuated virus has now been on its trial a considerable time, and a large experience gained. Judgment, it must be stated, still stands in suspense; but it must also be said that the results obtained tell decidedly in favour of the view advanced.

The other method by which it has been recently experimentally found that the virulence of bacilli can be weakened is by transmission through an animal of a different nature from that in which the disease naturally occurs. This, in reality, represents the principle at the foundation of the system of vaccination discovered by Jenner at the close of the last century. It may now be regarded as an accepted conclusion that vaccine-lymph is the virus of small-pox modified by transmission through the cow. Jenner's discovery consisted in showing that the result of vaccination with the lymph of cow-pox affords as much protection against small-pox as an attack of small-pox itself. This was the fact he educed, but the knowledge possessed in his time did not permit of its being looked at in any further way than as a simple fact or truth of nature. Viewed, however, with the light that has been thrown upon it by the researches of the present day, we see not only the fact, but also its explanation—we see that the principle of action of the procedure proposed by Jenner, which has conferred such incalculable benefit upon mankind, is based upon the attenuating effect upon the small-pox virus of the human species by transmission through another animal, and knowing this the prospect is presented of its being rendered susceptible of application for the control of other diseases. Whether this should prove so or not, at all events advantage is gained by the knowledge acquired.

Need I say anything more to exhort you in accordance with the duty that has devolved upon me? Surely the acquirement of knowledge, giving us as it does greater power in the exercise of our calling, and thereby promoting the high and noble object of rendering our lives more useful to our fellow-creatures—surely this is a sufficient incentive, following the words of Harvey, "to search and study out the secrets of nature by way of experiment."

ON SOME CLINICAL RELATIONS OF FUNCTIONAL ALBUMINURIA.

BY CHARLES H. RALFE, M.D. CANTAB., F.R.C.P. LOND.,
ASSISTANT-PHYSICIAN, LONDON HOSPITAL; EXAMINER IN MEDICINE, UNIVERSITY OF DURHAM.

IN the present paper I shall endeavour to show that a relationship exists between those forms of albuminuria which for conciseness are called "functional" and hæmoglobinuria, and I shall also hope to go a step further and bring forward facts which will tend not only to prove that such a relationship exists, but that in all probability many forms of "functional albuminuria" are only minor manifestations of hæmoglobinuria, and that the two conditions may become merged one into the other.

Writers, under the terms "intermittent albuminuria," "albuminuria of digestion," "cyclical albuminuria," the "albuminuria of adolescents, &c., have described a condition in which, without any great disturbance of bodily health, and apart from any definite renal disease, albumen is found, more or less, continuously in the urine. Although the question, whether these forms of albuminuria, as the various terms applied would imply, are really in each instance distinct, or whether they are brought about by the same pathological factors, may still be considered by many an open one; yet I think there are many considerations which would make us decide entirely in favour of the latter supposition. In the first place, taking any one of the above forms of "albuminuria," we find that though it may occur in either sex and at any age, yet the largest proportion of recorded cases will always be among young adult males. Again, these forms of "albuminuria" are nearly always found occurring among individuals who are either suffering from some constitutional taint, inherited or acquired—such as gout, rheumatism, syphilis or malaria,—or in whom some disturbance of the vaso-motor system can be demonstrated. The intermittent character of the discharge of albumen is common to all forms; for though in some cases it may be continuous, still even then there are distinct *tides* observable, and the ebb and flow are distinctly regulated by some disturbing cause, which in many cases is merely the performance of some physiological act—such as the ingestion of food, rising from bed, cold bathing, or exercise. The urine, too, in all cases of functional albuminuria exhibiting these features, so far as they have come under my observation, presents two characteristic features—viz., increase of urea and an abnormal amount of urinary pigment; whilst, but as a less constant phenomenon, bile pigment can also usually be detected. My attention was first drawn to the fact that both urea and the urinary pigment are increased in the urines of functional albuminuria by a case brought me by Dr. Sedgwick Saunders. In this case the urine was abundant, the specific gravity high (1028), and the albumen pretty constant, but varying in quantity, being chiefly affected by food and exercise. With a view to watching the effect of diet and treatment, the patient was directed to send a sample of his twenty-four hours' urine to Dr. Saunders' laboratory twice a week for examination. At the end of the month that gentleman sent me his report, and in it he drew my attention to the fact that on the days when the albumen was most abundant the specific gravity was above the normal; whilst the ring of urates which formed just above the cold nitric acid on which the urine was floated was, when the albumen was most abundant, always intensely coloured by the oxidised pigment of the urine. In subsequent cases of functional albuminuria of the character described I have always looked for this phenomenon, and in no case when albumen has been present have I failed to observe an absolute increase of urea and an increased amount of urobilin in the urine. The significance of this phenomenon will be considered further on when discussing the pathological relations existing between functional albuminuria and hæmoglobinuria.

Having thus briefly referred to the relationship, if not the identity, of the various forms of albuminuria which are generally included in the term "functional," I will as briefly sum up the chief clinical points of similarity that exist between functional albuminuria and hæmoglobinuria. In the first place, like functional albuminuria, hæmoglobinuria is essentially a disease of young adult males; like it, it is nearly always associated with hereditary or acquired constitutional taint—as malaria, rheumatism, syphilis, &c. In both, although the patients may look well, and even have a florid appearance, owing to injected capillaries, there is always a degree of anæmia, marked not only by paleness of the mucous surfaces, but by actual deficiency of red blood-corpuscles, sufficient to be determined by the hæmocytometer. Hæmoglobinuria, moreover, is accompanied with a certain degree of jaundice and marked dyspeptic symptoms; and although the same symptoms are not so pronounced in cases of functional albuminuria, still patients from that disorder complain to us of frequent bilious attacks and of indigestion. Again, although in some cases of hæmoglobinuria the urine remains free from albumen between the paroxysms, still in the majority the albuminuria continues, and if this albuminuria be watched from day to day it will be found also to vary in degree at different times, just as we should expect in a case of true functional albuminuria. Moreover, apart from the presence of hæmoglobin in the urine, the character of this secretion in the two conditions is very similar; for in hæmoglobinuria an increased excretion of urea is also observable, whilst, when the colouring matter of the blood has disappeared, the urine is nearly always found deeply coloured from excess of urobilin, whilst not infrequently

crystals of bilirubin may be observed in the urinary sediment. These considerations, I think, will be admitted to be strongly in favour of a relationship existing between hæmoglobinuria and functional albuminuria; whilst the three cases which I now bring forward will not only go to prove that view, but will also tend to show that "functional albuminuria" is often indeed only a minor manifestation of hæmoglobinuria, and that the two conditions may merge one into the other.

The first case was that of a gentleman who six years ago found he was suffering from albuminuria. By the advice of his medical attendant he consulted two London physicians, who told him he had Bright's disease, and that he must winter abroad. He did so, but it had no effect on the albuminuria. On returning to England he remained under observation for three years, the albumen continuing abundant, and the general health being little if at all impaired. About this time Dr. Oliver of Harrogate, who had also seen the case, began to have doubts as to the confidently expressed opinion of chronic nephritis, as there was neither loss of weight nor cardio-vascular changes, nor was there, or had there been, any œdema; whilst the secretion of urine was abundant and the specific gravity high. Dr. Oliver then consulted with me respecting the case. I found the daily average urinary secretion about sixty ounces, and the specific gravity about 1022; so that the solid matter daily eliminated by the kidneys, was about twenty-one grammes above the average of an adult of the same age and weight. This excess was almost entirely caused by the increased amount of urea. The urine gave a strong pigment reaction with nitric acid, and sometimes contained bile pigment. Albumen was very constantly present, but varied greatly in amount; no casts were observed, nor were there any of the usual symptoms of renal disease. The patient was healthy-looking, but somewhat pallid and sallow; he made no complaint, however, except that at times he was troubled with attacks of indigestion, and that after these he noticed he was more sallow than usual. My opinion coincided with that of Dr. Oliver, that the albuminuria was not caused by any organic disease of the kidney, but was probably functional. This was in the spring of 1883. He was placed on a strict dietary, and iron and arsenic given daily. His condition varied, but at last he began to improve, and one day in August, 1884, he called on me to say he had not seen any albumen for some weeks past. This statement was subsequently confirmed by Dr. Oliver, under whose observation he then was at Harrogate. In October of that year he took his wife abroad to winter in the south of France, he himself returning about the beginning of November. On the return journey he caught a chill. The day subsequently he passed a quantity of bloody urine. This I examined, and found no red corpuscles, and another sample sent to Dr. Oliver was also found free from them. The patient stated he had never noticed anything at all like it before, nor had he, to his knowledge, ever noticed any blood in his urine. He then had for five or six weeks distinct attacks of paroxysmal hæmoglobinuria. After two or three relapses he recovered, and for a time lost his albuminuria; but by degrees this returned, and was persisting when I saw him in the spring of the present year. His general health, however, remains good, he has gained in weight, and has not had any recurrence of hæmaturia.

In the second case the albuminuria was apparently ushered in with an attack of paroxysmal hæmoglobinuria. The patient was a young man brought to me by one of my colleagues. Four years previously, when studying on the Continent, he passed bloody urine; since then albumen has been more or less present in his urine. The sample I examined contained no casts, the specific gravity was 1028, and the quantity passed daily quite up to, if not above, normal limits. The pigment reaction with nitric acid was intense, and the urine yielded abundance of crystals of urea nitrate when treated with the same acid. The patient looked hearty and robust; there were no cardio-vascular changes; no evidence of dropsy at any period; whilst, according to the patient's statement, he had recently gained in weight. From the time he first noticed the bloody urine abroad four years ago none has passed since, although he has been on the look-out for it. His chief trouble is indigestion.

The third case is not so well marked as the preceding two; it, however, bears upon the point. A young man, aged twenty-one, consulted me in June, 1885. He had been rejected for life assurance on account of the presence of albumen in his urine. He did not know there was anything amiss, as he felt perfectly strong and well, and was only occasionally troubled with attacks of indigestion. He had never noticed his urine to be even of a dark colour, though he had seen red sand from time to time. The patient in this case was passing on an average fifty ounces of urine of an average specific gravity of 1030, having a considerable excess of urea and a strongly marked pigment reaction with nitric acid. No casts were to be found in the urine; he seemed in perfect health, was recently married, and able to perform his marital duties in a manner quite beyond the power of a victim to organic albuminuria. Under strict dietetic regulations and the use of arsenic and iron the albumen almost wholly disappeared from the urine, and after an absence for his holiday entirely so. In November, however, he got a chill coming out of church, felt very sick, and passed some dark-coloured urine. For some time after this the urine contained albumen, but no more blood passed. The albuminuria still recurs from time to time.

In these three cases, then, we have instances of an albuminuria complicated by an isolated attack of hæmoglobinuria. Of course it may be urged that the hæmoglobinuria was accidental in all three, and that it happened to occur in individuals already suffering from albuminuria. That it was not merely an accidental occurrence, but a transition of the one condition to the other, I now hope to show.

Clinical experience, as well as experimental observation, lead us to infer that hæmoglobinuria exists in two forms:—(1) A form in which the hæmoglobin is simply dissolved out of the blood-corpuscles; in this form the dissolution probably occurs in the course of the circulation, and is more usually local than general—that is to say, in parts exposed to cold or subject to vaso-motor disturbance, as in *asphyxie locale* or Raynaud's disease; (2) a more severe form, in which dissolution is general, and is probably attended with considerable destruction of red blood-corpuscles in the liver, and also in the spleen and kidneys. It is in these severe cases that the icteric tint is well marked, whilst, in addition to hæmoglobin, bile pigment and bilirubin crystals are found in the urine.

In health, as is now well known,[1] the effete red corpuscles are broken down in the liver, a great diminution occurring in the number of corpuscles found in the portal vein—a diminution which during active digestion is often as great as from 1,000,000 to 2,000,000. The effete hæmoglobin thus brought to the liver is, under ordinary circumstances, converted into pigment and urea; and as the recent experiments of Dr. Noel Paton[2] show, any increase of hæmolytic action results in an increased formation of urea and an increased amount of pigment in the urine.

In disease, or under the influence of powerful agents such as toluyendiamin or pyrogallic acid, the hæmolytic action is so increased that a very large quantity of the blood-colouring matter escapes conversion into bile pigment, and so passes off by the kidneys unaltered; at the same time there is undoubtedly an increased formation of bile pigment going on, which either appears unaltered in the urine, or is converted into urobilin, the ordinary urinary pigment. The albuminous element of the blood-corpuscles brought to the liver undergoes transformation into urea under ordinary circumstances; but when the destruction is considerable, and the process takes place under the influence of some sudden disturbance of the vaso-motor system, it is more than probable that, whilst there is an increased formation of urea, a large proportion of this effete albumen is at once got rid of by the kidneys.

Again, it has been observed that when certain hæmolytic agents are injected, a small dose in many instances will only cause albuminuria, whilst a larger dose is required to produce hæmoglobinuria. The same has been noticed with regard to animals; a dose of pyrogallic acid that in a cat will produce decided hæmoglobinuria, will when administered to a dog only cause an increase of bile pigment in the urine, together with some degree of albuminuria. It would thus seem that there are degrees of abnormal hæmolytic action. In the minor degree there is increased conversion of the blood-colouring matter into bilirubin and urobilin; the effete albuminous constituent passing off in part unchanged by the kidneys, in part undergoing conversion into urea. In the more severe form the number of blood-corpuscles de-

[1] Nicolaides: Archiv de Physiologie, t. x., p. 531, 1882.
[2] British Medical Journal, July 31st, 1886.

ME TIGHTLY BOUND

stroyed are so great that the conversion of all the effete hæmoglobin into bilirubin cannot be effected, though the amount is undoubtedly increased, so that the undestroyed hæmoglobin appears in the urine. In this case there is also an excess of urea and of urinary pigment, together with the presence of albumen in the urine.

These gradations of hæmolytic action may be thus expressed:

Ordinary hæmolysis.	Urinary pigment, urea.	Normal urine.
Active hæmolysis.	Increase of urinary pigment, increase of urea.	Urine of digestion.
Increased hæmolysis.	Increase of urinary pigment, appearance of bile pigment, increase of urea, albumen in urine.	Functional albuminuria.
Extraordinary hæmolysis.	Hæmoglobin in urine, increase of urinary and bile pigment, increase of urea, albumen in urine.	Hæmoglobinuria.

With regard to the pathological conditions that induce this increased and extraordinary hæmolysis in functional albuminuria and hæmoglobinuria we are still in the dark, though it is probable they are of the same character, but differing in intensity. If asked to formulate an hypothesis, I would say that in both the essence of the disease consists in an increased irritability of the vaso-motor reflex centre, which causes increased hæmolysis in the liver; but, in addition to this, there is the formation, probably owing to disorder of the blood-forming organs, of corpuscles unable to withstand unusual disintegrating influences. The fact that individuals suffering from functional albuminuria, or hæmoglobinuria, have generally some taint, hereditary or acquired, such as gout, rheumatism, syphilis or malaria, accounts, no doubt, for the disorder of the blood-forming organs, and also possibly for the instability of the vaso-motor reflex centre. With regard to the treatment of the two conditions, the same may be pursued in both. The diet should be light and chiefly non-nitrogenous, care being taken not to prolong the intervals between meals too long, or to allow too much food to be taken at any one time, since from the experiments of Nicolaides it has been shown that the hæmolytic action of the liver is increased during active digestion or by the ingestion of too much food; whilst too much nitrogenous food undoubtedly increases the metabolic activity of the liver. Quinine and iron are essential, but when given with arsenic the best results are obtained. Arsenic appears to have the power of diminishing the hæmolytic action of the liver, as well as strengthening the resisting power of the red blood-corpuscles.

Queen Anne-street, W.

THE TREATMENT OF INTUSSUSCEPTION BY INFLATION AND MASSAGE.

By W. B. CHEADLE, M.D., F.R.C.P.,

SENIOR PHYSICIAN TO THE HOSPITAL FOR SICK CHILDREN, GREAT ORMOND-STREET, AND PHYSICIAN TO ST. MARY'S HOSPITAL.

IN these days of the apotheosis of abdominal surgery, instances of the cure of intussusception by inflation and manipulation of the abdomen deserve to be recorded as a useful reminder of the value and efficacy of the milder method. Three consecutive cases have been successfully treated in this way at the Hospital for Sick Children during the past eighteen months—two under my own care, and a third under that of my colleague, Dr. Barlow.

The first case (for the history of which I am chiefly indebted to the registrar, Dr. Chaffey) is that of Ernest C——, aged five months, admitted July 12th, 1884, with constipation, frequent vomiting, and passage of blood from the rectum. The doctor who had been called in to see the child in the first instance diagnosed intussusception, and advised that he should be taken to the hospital without delay. The further history elicited from the mother was to the effect that the infant had been healthy previously, except for slight bronchitis and occasional constipation. One of these attacks of constipation commenced on the 4th (eight days before); and on the 7th, the bowels not having been open for three days, the mother administered a dose of "white magnesia." The following day (the 8th) the child had a natural stool. On the 9th half a Steedman's powder was administered, followed by two actions on the 10th. The other half of the powder was given, but the bowels were not moved again. On the next afternoon (the 11th—i.e. the day before admission) the child kicked and screamed so much after being put to the breast, as if he had pain in the abdomen, that the mother applied hot flannels. These seemed to give relief, and he slept for some time. In the evening, however, he became restless, and about midnight began to vomit, which he continued to do repeatedly. For the last hour the vomit was green and watery. At 5 A.M. a thin bloody discharge began to be passed from the bowel, and this recurred three or four times. The infant was seen by me almost immediately after it was admitted. It was fat, but somewhat pale and flabby; it did not appear distressed, although it had frequent hiccough. The temperature was subnormal. The abdomen was not greatly distended, but more resisting to palpation than usual, and the handling evidently caused discomfort. Passing from side to side, about an inch above the level of the umbilicus, an elongated sausage-like tumour could be distinctly felt. It extended into the left flank, and was there lost. It could not be felt in the right flank, although it commenced to the right of the middle line. It was smooth, could be moved upwards and downwards a little, and did not appear to be very tender. Examination by the rectum showed it to be empty. There were no fæces. The withdrawal of the finger was followed by the discharge of thin bloody fluid. An injection of warm water was at once given with an ordinary Higginson's syringe, but not more than two syringefuls could be passed in; it was forcibly returned at once, in spite of all attempts to prevent it. Injection of air was accordingly substituted; four syringefuls were introduced, and kept in by pressing the folds of the buttocks and the skin of the anus closely round the base of the nozzle of the syringe. At the same time the abdomen was kneaded externally. It was found that at least three persons were required to carry on these operations satisfactorily—viz., one to work the syringe, one to compress the anus and prevent the escape of air, and a third to manipulate the abdomen. After this process had been continued for some minutes the tumour was found to have disappeared. On careful re-examination a quarter of an hour later no tumour could be detected. When, however, the child was again examined by the house-surgeon, Dr. Thomson, some hours afterwards, a firm, sausage-like tumour was again distinctly felt in the right hypochondrium. Digital examination again showed the rectum absolutely empty except of sanious fluid, which followed the withdrawal of the finger as before. The injection of air and massage were accordingly repeated by Dr. Thomson under chloroform, which greatly facilitated the proper carrying out of the operation. This time ten syringefuls of air were injected, when the bowel was felt to become hyper-distended in the left flank. After a few minutes the air was allowed to escape, and it was then found that the characteristic tumour had again disappeared, although it was thought that the colon could be felt more rigid and thickened than normal. This would probably be its condition from the swelling of congestion. About four hours later the child passed a natural motion, and again took the breast readily; the bowels continued to act regularly, the tumour did not return, and after a few days the little patient was discharged well.

The second case (for the notes of which I am also largely indebted to the registrar) was that of James S——, aged five years and a half, admitted May 27th, 1885. On the 20th he had been suddenly seized with violent pain in the lower part of the abdomen, which recurred constantly day and night, with frequent vomiting. Slime and blood passed from the bowels for the first two days, but no fæcal matter. Subsequently, the bowels did not act until the 26th, when a little hard fæcal matter passed. After this the vomiting and pain were much less. A similar attack was said to have occurred three years ago. The present one was attributed to getting wet on walking home from a friend's house, where he had supper. On this occasion a fish-bone stuck in his throat, and the father gave him some ale to wash it down. These events happened on the 19th, the night before the pain and vomiting commenced. The patient being admitted late in the day, and there being no urgent symptoms, he was not minutely examined by the

house-physician until the evening. In the meantime he had once passed some blood and mucus, and afterwards blood alone. Examination showed the abdomen unduly distended, and a large sausage-like tumour could be felt, extending from the lower epigastric region to the left hypochondrium. It was almost identical in character and situation with that in the previous case. The rectum contained only some bloody fluid. Dr. Thomson at once communicated with me. On my arrival, finding that there was no doubt about the existence of intussusception, inflation was carried out as before by Higginson's syringe, under chloroform, and accompanied by massage. As the air began fully to distend the intestine, the tumour was felt to pass gradually from the left hypochondrium to the right flank, and finally disappear. After a few minutes the air was allowed to escape. No tumour could be found, but, to make assurance doubly sure, the inflation and massage were repeated, and continued for a longer period. At the close of this the abdomen was again examined. The only sign of the tumour which could be detected was some rigidity of the bowel in the region of the cæcum. This remained, and was followed by pain and tenderness there. Subsequently there was increased tympanites and general tenderness, with diarrhœa, but no marked rise of temperature. These symptoms abated very gradually and with many fluctuations, the resistance and tension in the right iliac fossa and the diarrhœa not finally subsiding for some weeks. At the beginning of August the boy went out well.

The third case, under the care of my colleague, Dr. Barlow, was closely analogous to the first case in the conditions found and in the result achieved. For the details of it I am indebted to the kindness of Dr. Swift, house-physician to the hospital at the time, who had the conduct of the case in the emergency. Amy McF——, aged six months, was admitted on June 7th, 1885, at 11.30 P.M. She had been for some time an out-patient on account of diarrhœa, and for the previous four days she had not been so well, having been without medicine. At 1 P.M. on the day of admission—i.e., about ten hours before—she had suddenly begun to scream violently every few seconds, kicking and wriggling about, and vomiting frequently. She passed some bright-red blood and mucus, but no fæces. The screaming and vomiting continued during the whole of the afternoon and evening, until she was brought to the hospital. She was a healthy-looking child, but evidently in great pain, screaming and kicking continually. The right side of the abdomen felt empty, especially in the region of the cæcum; while on the left side there was a tumour, seemingly about two inches thick and some three inches and a half long, lying transversely from just above the umbilicus to the left hypochondrium, and there curving slightly downwards. It was freely movable and firm; no impression could be made upon it. Intussusception was diagnosed, and the child was forthwith placed fully under the influence of chloroform. The above position of the tumour was then verified. Nothing could be felt in the rectum, but a little blood escaped. The bowel was inflated, as in the previous cases, with a Higginson's syringe, and the abdomen kneaded by the hand. The tumour could be felt receding as inflation proceeded, until the abdomen was fully distended. When the air was allowed to escape, a slight thickening could still be felt in the region of the tumour. Dr. Swift accordingly again inflated the bowel, and this time the whole course of the large intestine could be clearly seen. On the air escaping once more, no tumour, thickening, or resistance could be found anywhere. A drop of laudanum was administered after the child had regained consciousness, but as she continued to scream chloroform was again administered lest the excitement should cause return of the intussusception; four hours' sleep followed. The next day the child was well, no thickening or tumour could be detected, and no further trouble followed.

The point chiefly worthy of remark in the first case is the return of the tumour after its disappearance on the first inflation. The explanation seems to be that the intussusception was only partially overcome in the first attempt. This explanation is rendered probable by the fact that *ten* syringefuls of air were introduced on the second occasion, instead of only *four*, as in the first, the bowel unfolding more easily under the distending pressure, and admitting at once a larger volume of air. If the tumour had merely been displaced by the first operation, it would have quickly returned when the pressure was relieved by the escape of the introduced air, and some trace of it would have been found at the examination a quarter of an hour later. The use of chloroform probably greatly aided in the success of the second inflation by preventing the resistant contraction of the abdominal muscles.

In the second case, the immediate and complete reduction of the invagination at the first attempt, and its failure to return, are deserving of note; and also the prolonged typhlocolitis which followed, partly due possibly to the more prolonged distension and massage, and partly to the greater congestion of the gut from longer strangulation. The history of pain and vomiting, probably indicating partial invagination, extended in this case over a week, in the others only twenty-four hours and ten hours and a half respectively. The successful use of inflation in an instance where the symptoms of intussusception had existed so long is very noteworthy. From the history of a previous attack of pain and vomiting, it seems probable that the boy had suffered from typhlitis before, and that the present intussusception had its origin in slight typhlitis. The valve orifice being thus rendered more rigid, the involution of the large bowel by the more active peristalsis of the small intestine would be greatly favoured.

The third case corresponds very closely with the first. The intussusception was recent; it was completely reduced, and no after consequences of any kind followed.

THE CONNEXION BETWEEN PULMONARY PHTHISIS AND OVARIAN DISEASE.

BY BEDFORD FENWICK, M.D., M.R.C.P.,

ASSISTANT-PHYSICIAN TO THE CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, VICTORIA PARK, AND TO THE HOSPITAL FOR WOMEN, SOHO-SQUARE.

(*Concluded from page 717.*)

I HAVE examined with some care the literature of the subject for the last half-century, and have failed to find that any observer has hitherto suggested or proved any family predisposition to any special disease in these cases. And this appears the more strange, not only when the large number of great clinicists and writers who have discussed the matter is remembered, but especially when the pathology of the disease is thoughtfully considered. For it is, I take it, generally accepted that most, if not all, the various forms of intra-ovarian cysts originate in a degeneration of one or more Graafian follicles.[1] We recognise that cancer in the parent may cause a similar disease in the offspring, that phthisis descends from generation to generation, that gout and many other diseases are distinctly hereditary. And phthisis, I venture to believe, really passes from the father or mother to the children, not because the spermatozoa or the ovum contains a baby bacillus, but because it bears in some wonderful way an impressed general tendency to early degenerative changes, *plus*, perhaps, a local tendency to pulmonary disease. Other hereditary diseases show their transmitted types in the later days of life; phthisis in its early effects. And so it certainly appears to me that a family tendency to early degenerative changes might, *primâ facie*, be suspected in a patient who develops the slow degeneration of the Graafian follicle, which culminates in the fully formed ovarian cyst. But, as I have said, I have failed to find anything relating to this matter in modern medical literature, and I have therefore had to content myself with a smaller number of facts culled from fewer sources than I could have wished. I think, however, that they will be sufficient to show the probability at least of what I desire chiefly to call attention to—viz., the theory *that ovarian cystic disease arises in many cases because the patient has an hereditary tendency to degenerative changes, or, in other words, belongs to a phthisical family.*

My facts, then, consist, firstly, of all the cases of ovariotomy performed or of ovarian cyst found post mortem at the Hospital for Women from the beginning of 1882 up to the present time—148 in number,—and of two cases occurring in intimate friends of my own, so as to make a series of 150 in all; secondly, of two family charts showing the cause of each death; and, thirdly, some isolated cases from

[1] Wilson Fox: Royal Medico-Chirurgical Society's Transactions, June, 1864. Harris and Doran: Journal of Anatomy and Physiology, July, 1881.

different authors, which illustrate the various points I wish to prove.

Firstly, then, with reference to my series of cases. They consist, as I have said, of 150. And to begin with, it is, of course, necessary to show that they are fairly typical examples of the disease. To test this, it seemed to me that the best plan would be to get the average age of my cases, and compare it with that of Sir Spencer Wells's 1000 patients. He writes of them:[2] "The average age of the patients proves to be as nearly as possible 39 years." It is therefore interesting to note that the average age of my 150 cases was 39·43 years. And, moreover, as they were all that were verified by inspection during four years at one hospital, I think they may fairly be taken as typical examples of the disease. At the outset I have had a very serious difficulty in collating anything like accurate information as to the family history of these cases. And this is of course due to the natural fact that, as attention has not hitherto been called to the matter, the clinical assistant, in making the notes of the case, I find, has generally confined himself to asking if any of the patient's family had had any affection similar to her own. Consequently, I discover that of the 150 cases, in 90 there is no note made at all of the family history. But in the remaining 60, in many cases what is stated is often of the briefest description. To tabulate, however, the family history as given of these 60 cases: it is noted as "good" in 3 cases; as "unimportant" in 2 cases; that one or more members died of *cancer* in 5 cases; that the father died of bladder trouble in 1 case; that one or more members died of heart disease in 2 cases; that the parent died of old age in 2 cases; giving more or less varied histories therefore in 15 cases. But the family history is noted as strongly *phthisical* in 32 cases, and in 2 of these one or more other females of the family suffered from *ovarian disease*. A well-marked family tendency to ovarian disease besides the above existed in 3 cases; a family tendency to "asthma" or "chest complaints" in 9 cases; and both parents died very early, with "a doubtful history of lung disease," in 1 case; making, therefore, out of the 60 cases a total of 45 in which a more or less definite family tendency to ovarian disease or phthisis is well proved. The poorer classes so frequently, from various motives, call consumption "asthma," and phthisis is certainly the only "chest complaint" which exhibits an hereditary tendency, that the cases in which the family history was noted in the above vague terms I have no hesitation in classing with the others. We therefore find that out of 60 cases of ovarian cystic disease there is a marked family history of phthisis in 42, or exactly 70 per cent. Now that fact, did it stand quite alone, would be strong evidence, but the links of the chain are found to be stronger the more closely they are examined. The average age of the 32 cases in whose family history phthisis is noted as strongly marked is 39·27 years, or almost precisely the average age of the whole series. And on analysing these 32 cases, and the sex and numbers of each attacked by phthisis, it is found that in 9 the father was the only direct relative affected, and in only 2 cases was the mother the solitary sufferer from the disease, whereas in all the remaining cases one or more of the children or collateral relatives are also affected. But on grouping the families according to sex, it appeared that the male tendency to phthisis was almost exactly equal to the female predisposition. Now, though these may seem at first strange facts, they are easily explicable, for it is well known to specialists in thoracic diseases that if the father be phthisical the sons may escape the affection, and that if daughters inherit the tendency they develop the complaint in its most chronic condition, and show, as a recent writer[3] puts it, "an increased tendency to improve and a diminished tendency to get worse"; whereas, if the mother has phthisis, it is much more common to find the children also attacked—affected at early ages, and in a more acute degree. In other words, then, a phthisical father transmits to his daughters a tendency to just such chronic degenerative changes as we know take place in the production of ovarian cysts. The analogy between the two diseases in this respect therefore is very marked and important.

But, again, I would call attention to the well-known frequency in which the analogue of the ovary, the testis, is implicated in men affected by phthisis, either primarily or secondarily, the organ showing the typical tubercular change. And although Rokitansky denies that tubercle ever attacked the ovary, Wilson Fox and other observers have proved beyond doubt the existence of the typical growth in the organ in well-marked cases.[4] Then there is yet another important piece of collateral evidence which I believe has never been hitherto noted. It is an extremely common thing to find in a case of hereditary phthisis that many, and sometimes nearly all, of the teeth have become carious, and been lost at an early age. For example, out of twenty cases which I have specially examined in the last fortnight I found that eighteen had lost eleven or more teeth before the age of twenty-three, and I have frequently found the same condition of soft, eroded, crumbling teeth, or a more or less edentulous state in patients suffering from cystic ovarian tumour. And though I cannot at this moment give definite figures in support of the latter fact, I am perfectly convinced that were they forthcoming they would prove quite as conclusive in these latter cases as in those of pulmonary phthisis. Finally, in many cases of my series the patient had suffered from chest complaints, or we found post mortem old or recent phthisical changes in the lungs. Out of the first 300 cases of Sir Spencer Wells, he notes incidentally that three patients had died within two years after the operation of phthisis. Probably more deaths will be found to be due to this cause if special inquiry is made in future into this point.

I append to this paper the charts of two families. I have had so much trouble in compiling them, and verifying the causes of death, that I can quite understand the difficulty which will attend a similar research. Still, I would fain hope that future observers will make earnest attempts to obtain from their cases some such information. It will be observed that these show in the most marked and unequivocal manner the close connexion between phthisis and ovarian disease in each family. As an appendix to these charts, I may add that I saw only the other day a patient suffering from ovarian tumour whose father died at the age of thirty-seven of phthisis, and her only brother died at seventeen of the same disease. Finally, in five out of the forty-five cases of my series in which a more or less marked family history of phthisis was obtained, one or more of the female members, in addition to the patient herself, had suffered from ovarian dropsy, "water tumour in the stomach," and "dropsy in the stomach for years," as it was variously described.

And now having shown the close connexion which appears to exist between phthisis and ovarian cysts, and taking it for an ackowledged fact that phthisis is distinctly hereditary, in order to clinch and close my argument I wish briefly to point out the fact that ovarian cysts are frequently hereditary also. Dr. Lever[5] mentions a family in which five deaths occurred from ovarian disease. Dr. John Rose[6] cites the instance of two sisters who had ovarian dropsy, and whose mother's sister was similarly affected. In the first family chart it will be noticed that a lady has just recovered from ovariotomy; that her mother's sister and her mother's grandmother both died from the disease. In the second chart, the grandmother, the mother, and the eldest daughter all suffered from the same affection. Sir Spencer Wells[7] thus quotes his 200th case: "The patient was a lady thirty-seven years of age, the mother of six children. I had previously removed an ovarian tumour from a daughter of her mother's sister, and have since done the same for another patient, the daughter of another sister of her mother; thus making a series of three cousins, children of three sisters, none of whom have ever shown any sign of the disease—a curious fact in relation to cystic pathology." I venture to think that I have explained the curious fact that in all probability, were the matter investigated, there would be found a history of phthisis or of ovarian disease in the grandmother's generation.

I would therefore sum up my conclusions thus:—1. Ovarian cystoma is caused in many cases by an inherited tendency on the part of the patient to degenerative changes. 2. This inherited tendency is due to a family predisposition to pulmonary phthisis. 3. Gestation and severe falls or strains are probably powerful exciting causes of the disease.

The practical lessons to be learnt from the facts I have given are great and varied, and, with increased investigation

[2] Op. cit., p. 256.
[3] Reginald Thompson: On Family Phthisis, 1884, p. 79.
[4] Wells: Ovarian and Uterine Tumours, p. 58.
[5] Guy's Hospital Reports, vol. i., 1855, p. 79.
[6] Peaslee, op. cit., p. 58.
[7] Op. cit., p. 67.

FAMILY CHARTS, SHOWING MARKED LIABILITY TO PHTHISIS AND OVARIAN DISEASE

FAMILY CHARTS, SHOWING MARKED LIABILITY TO PHTHISIS AND OVARIAN DISEASE

Anna W., Died, aged 70, of ovarian dropsy.
married
George S. Died in extreme age.
Frances Amelia, Died, aged 39, of (?).
married
John F. H.
Sophia, married B. P. Died, aged 86, of bronchitis.
James. Died, aged 24, of phthisis (acute).
Maria, married William C. Died, aged 60, of (?).
Anna, married Mr. M. Aged 51, living.
Frances. Died, aged 74, of ovarian cyst.
George, married Agnes H. (a 1st cousin). Died of cerebral tumour.
Died of phthisis.
Emily, living, aged 72. Single.
Georgina. Died, aged (?).
Adolphus, mar. Ella. F.
Frederick, aged 63, living.
Family and grandchildren healthy, and living.
3 daughters, living, delicate; 9 sons, nearly all died of phthisis.
3 daughters alive; 3 sons died of phthisis; 1 son died of carcinoma of œsophagus.
2 sons, 2 daughters, } Living; all delicate.
1 daughter, just recovered from ovariotomy,
2 daughters, died of phthisis,
1 son, died of phthisis.
1 son, 5 daughters, } Living; all delicate.
2 daughters, died, aged about 24, of phthisis.
Jane S., married Mr. T.
Annie, died, aged 30, of phthisis.
Mary, married Mr. P. Had for some years, and died of, ovarian dropsy.
Jane, died, aged 30, of phthisis.
Mary, married Mr. P. Has had now for some years ovarian cyst.
George, died, aged 30, of phthisis.
Mary, had ovarian cyst. Died in India lately of Labore fever.
2 other children, very delicate.
George, has now phthisis.

leading to further and wider knowledge, will certainly prove greater still. For example, we should already, perhaps, pronounce against a woman of marked phthisical tendency encountering the risks of married life. The intimation we now have gained of the other dangers she and any future daughters will be exposed to should strengthen our hands in more decided expression of opinion. We shall, I think, be able to show that sterility will not increase such a woman's tendency to be affected by ovarian disease, but that pregnancy may very probably do so. Then we can clearly understand how an ovary which is or may be subject to degenerative changes is more likely than a healthy one to evolve an ovum having within it the seeds of the same disease. So the practical rule would be—first, when an ovarian cyst is discovered, to insist that future conception must be prevented, and to remove the growth as soon as possible; and secondly, while performing ovariotomy, to extirpate the other ovary too. For I contend most strongly on every ground, moral and physical, that it is wrong to allow a patient who has already shown the clearest evidence of degenerated ovarian structure the opportunity of perpetuating in children yet unborn the same disease and suffering. And we have Mr. Lawson Tait's[a] high authority for believing "that it is in no way more risky to remove two ovaries for cystoma or anything else than to remove one." And, moreover, it is a well-known fact that in cases of an ovarian cyst, it is very rare for the other ovary to be perfectly healthy.

In conclusion, I venture to believe that I have shown the distinct probability that the great predisposing cause of ovarian disease is a family tendency to phthisis, and that gestation may be the exciting cause. But in view of the immense importance of the subject, both to the profession and the public alike, as regards questions of diagnosis and prognosis, and the still greater matter of prevention, I would earnestly appeal to all who in future have to treat cases of ovarian cystoma either to publish as complete as possible a family and previous history of each, or to favour me with the notes, which, of course, I would duly acknowledge. A thousand well-recorded histories would definitely settle the important points I have touched upon by the hard logic of manifold facts. I should not base implicit confidence upon a smaller series. Straws show how the wind blows, but mathematical precision can alone determine its force.

West-street, Finsbury-circus, E.C.

ON THE

TREATMENT OF VARICOSE VEINS BY THE INJECTION OF CARBOLIC ACID.

BY SURGEON-MAJOR W. F. STEVENSON,
MEDICAL STAFF.

IN the last paragraph of one of the chapters of Mr. Watson Cheyne's book on "Antiseptic Surgery" some short but very valuable instructions are given regarding the treatment for the radical cure of varicose veins by the injection of pure carbolic acid. I have treated within the last two years and a half eight cases (some of considerable severity) by the method Mr. Cheyne describes, with the most desirable results and with no ill-effect whatever. Under the circumstances it may, perhaps, be worth while to draw renewed attention to the very simple and effective means referred to for the removal of this troublesome complaint.

The treatment consists in the injection of one minim of pure carbolic acid at different situations into the enlarged veins, having previously cut off the circulation from the limb by means of an elastic bandage placed above the highest point of puncture. For the latter purpose the tube of an Esmarch's apparatus is best, but a Martin's bandage or two or three yards of elastic webbing will do excellently. Before operating the patient should be directed to stand erect or to sit on the edge of his bed with his heels on the floor for about two minutes in order to allow the veins to become distended. The Esmarch tube should then be passed round the thigh one and a half times, sufficiently tight to stop the

[a] British Medical Journal, vol. i., 1886, p. 924.

superficial venous circulation, and a little time (about a minute) given for the vessels to become well filled below it, the remainder of the tube being then applied so as to cut off all circulation from the limb. Injections of pure carbolic acid, one minim each, are then made into the veins at about one inch and a half apart—as many as may be required for each case. A little pledget of absorbent carbolised cotton-wool is placed over each puncture as the needle is withdrawn, and well soaked with collodion; this is allowed to remain until, in the course of time, it falls off, when healing will usually be found completed. The elastic bandage cutting off the blood-supply should not be removed in less than fifteen minutes after the last injection has been made, and great care should then be taken not to remove it suddenly. The circulation should only be permitted to return by very slow degrees. For at least a week after the operation the patient should not assume the erect position or put his foot to the ground for any purpose whatever. The pain is very slight; besides that of the pricks of the needle, a burning sensation is felt at the seat of each puncture, lasting for ten minutes or less; and even this is not severe. Certainly no anæsthetic is required. Care should be taken that the subcutaneous injection syringe and needle are "surgically clean," and to ensure this they should have been placed in a 1 in 20 carbolic lotion for about twelve hours previously to use. I have done as many as eighteen injections in one case; and it seems to me advisable to begin with the injection next to the elastic bandage—that is, the one highest on the limb. Getting the point of the needle well into the vein is not quite so easy a matter as might at first appear; attempts to do so at right angles to it frequently fail, and the injection is thus made into the surrounding tissue. The best plan is to fix the skin over the vessel by means of the left thumb, close below the point selected for puncture, and to direct the needle through the skin and coats of the vein in the long axis of the latter. I should think that, in my cases, somewhere about 10 per cent. of the punctures caused suppuration, a little abscess about the size of a pea forming where this occurred; but this process, as the result of the caustic action of carbolic acid, was curiously slow and almost absolutely painless. Three of my cases were done to remove the cause of varicose ulcers of the leg, which had been healed over and over again by rest in bed and different means of local treatment, but which had broken out afresh on the patient's commencing to get about again. One of these, I know, was permanently cured by the operation, and so were the others, I believe. It sometimes happens that suppuration takes place at the seat of a puncture two or three weeks after the patient has been discharged from hospital, and some of the resulting indurations may continue tender on pressure for many months, but these trifling drawbacks of the operation are amply compensated for by the simplicity and safety of its performance, and the excellence of the results obtained from it.

To military surgeons a simple and efficacious operation for varicose veins, when devoid of danger, is especially valuable; a soldier who is unable to march being but a useless incumbrance to his regiment, and one with even a slight show of knots on his calf always having it in his power, if so inclined, of avoiding any duty he may dislike by "reporting sick." But though usually not very open to personation in the matter of operations, soldiers, in my experience, do not object to undergoing this one. The points to especially attend to are—(*a*) to have the circulation completely controlled and the vessels well distended; (*b*) to get the needle well into the vein in the direction of its long axis; (*c*) to allow the circulation to return to the limb very slowly; and (*d*) to carefully warn the patient against the extreme danger of putting the limb operated on to the ground at too early a day.

Mr. Farrant Fry, of the Swansea Hospital, recently advocated the excision of lengths of the diseased vessels between catgut ligatures with strict Listerian precautions; and Mr. Bryant recommends injections of the perchloride of iron between acupressure needles. But certainly Mr. Fry's is a muchmore serious undertaking than that suggested by Mr. Cheyne, and Mr. Bryant's includes the additional item of the use of acupressure needles; and these latter, in one case I saw operated on by their means, caused death by tetanus. As regards the durability of the cure, I have had opportunities of watching the cases for at least six months after the operation, and no return of the varicose condition had occurred in that time in the veins subjected to the treatment: but it has happened that some knotted points had escaped injection on the first occasion in those cases requiring many insertions of the needle, in consequence of the vessels having become empty, or nearly so, during the time occupied by the necessary manipulation, and so required a second sitting to be taken. My experience warrants me in strongly recommending this mode of treatment for the varicose condition of the veins of the leg whenever an attempt at radical cure is indicated, in consequence of the patient's capability of walking being interfered with, of the existence of intractable ulcers, of danger of hæmorrhage from threatened rupture, or of incapacity for the public services.

Punjab, India.

WHAT CONSTITUTES MALIGNANCY?

BY HERBERT SNOW, M.D. LOND.,
SURGEON TO THE CANCER HOSPITAL.

(*Concluded from page 720.*)

THERE is another clinical difference between scirrhus and encephaloid to which I have not alluded, but which is also susceptible of explanation on the same grounds. In scirrhus, as is known, the adjoining lymph glands are nearly always affected very early; in encephaloid of the site we are considering, remarkably late, especially when we remember the friable, loosely cohering nature of the growth. It appears to me that we may plausibly put these differences down simply to *differences in pressure*. In the one case we have cell growths under difficulties, as it were, and against highly resisting tissues; the young cells or their nuclei are speedily forced into the lymph channels, and so carried on to the corresponding glands. In the other, the cells are allowed to grow freely on their original site, without hindrance from the enveloping tissue; and the lymph-glands now long escape infection.

It follows, again, from what has been said, that the term "scirrhus," when applied to malignant growths elsewhere than in the female breast, is unscientific and misleading. When we so designate a breast tumour we know exactly what we mean, and in so speaking convey to others both the origin and general characteristics of the neoplasm; but in talking of scirrhous cancer in other situations we imply that the tumour is of a certain degree of hardness when cut by the knife, but we altogether blink the question of its origin. To take one noteworthy example, we used very commonly to hear of scirrhus of the rectum, until this was conclusively shown by Mr. Harrison Cripps to arise from the columnar epithelium of the part, and so to be really a cylindroma. So with other sites; so-called scirrhus of the pylorus originates in the mucous epithelium, judging from two or three specimens I have examined, either from the mucous lining of the lower end of the œsophagus (in which case the epithelium is squamous, and we find birds' nests), or from that lining the gastric follicles, whence results a cylindroma. In the former event there does not seem to be much appearance of acini, but what there is depends on the stage of the tumour and the condition of the fibrous tissue. And the same remark holds good with cancer in other parts of the intestinal canal. All such growths, be it remarked, are very hard, and involve much puckering and contraction of the adjoining tissues—a feature I have already explained. And it is very probable that here, under constant irritation, there results some hypertrophy of the fibrous tissues; but these phenomena do not constitute scirrhus. So that in my humble opinion the term scirrhus should be entirely restricted to breast tumours; elsewhere it is a misnomer, leading to erroneous pathological views. And this is, I think, a point of very great importance, especially when we endeavour to take a collective and general view of cancerous disease.

I cannot help thinking that the term "round-celled sarcoma" is a great deal too much in vogue at the present day, and that, implying as the word does a connective tissue origin, we should employ far greater caution in its use. We now commonly make use of it wherever we encounter a malignant tumour of soft pulpy consistence, whitish granular appearance to the naked eye, under the microscope found to be composed mainly of roundish cells

with large nuclei, and to contain very scanty remains of the original fibrous tissue of the part. Whence these cells spring must often be a mere matter of guesswork, and the amount of fibrous tissue within it is frequently only a question of the stage which the growth has attained. At any rate, many tumours which I have seen thus designated have been plainly referable, so far as I was able to make out, to the glandular epithelium (this has been particularly the case in the female breast); or, on the other hand, to the cells of lymphatic glands (I have noticed this in the axilla and abdomen). In the former case the term "encephaloid cancer" would surely be far more appropriate; in the latter the term "lympho-sarcoma." Of course I do not for a moment mean to assert that there are no true round-celled sarcomata arising from the nuclei and corpuscles of the connective tissue, but only that the word is often used very loosely and incorrectly.

I must now draw attention for a moment to the classification of malignant disease as represented in the following table, which I believe to be in accordance with the prevailing pathological views, although these tend not a little to vagueness and to over-refinement; witness, for example, the distinction which some pathologists draw between large and small round-celled sarcoma, and between large and small spindle-celled sarcoma:—

Classification of Malignant Diseases.

I. Alveolar carcinoma.
(Derived from glandular epithelium; usually described as characterised by locular structure.)
(*a*) Scirrhus.
(*b*) Encephaloid. Sub-variety: Colloid.

II. Sarcoma.
(Origin from connective-tissue corpuscles.)
(*a*) Round-celled. } Sub-varieties:
(*b*) Spindle-celled. } Osteoid, melanoid.
(*c*) Mixed-celled. }
(*d*) Glyoma.
(*e*) Myeloid.

III. Epithelioma.
(Proliferation of epithelium on skin or mucous membrane.)
(*a*) Scaly.
(*b*) Columnar.

IV. Lympho-sarcoma.
(Proliferation of lymphatic gland cells.)

It would, I think, be a very important and useful modification of this table if in place of the term "alveolar carcinoma" (with the stress therein laid upon locular structure) we were to coin a word expressive merely of proliferating glandular epithelium. With such an alteration a general survey of the whole kingdom of cancer will at once suggest the definition which I here propose to offer in answer to the query which is the title of this article. Reduced to its simplest form, *malignancy is a peculiar and abnormal proliferation of cell elements*, and by so regarding it I think we do much towards clearing up our intellectual horizon, and towards bringing ourselves face to face with the great problem we have still further to solve, "What is the cause of this abnormal proliferation?" To such a view the rarer sub-varieties of malignant disease (colloid, melanoid, and osteoid) present no difficulty, being merely examples either of degenerative processes or of subsequent attempts by nature at organisation, grafted on the primitive neoplasm.

Of the four great classes in my table, that of epithelioma is the one which seems to me most typical, as presenting the phenomena of malignancy in their simplest and most transparent form. We here see certain familiar cell elements acted upon for some length of time by a mechanical irritant, which we can in most cases accurately indicate. Under such an influence we find these cells greatly increase in vitality and in number; passing from their original site, they grow freely in the subjacent tissues, on which they prey; they quickly invade any adjacent lymphatic glands, which serve as fresh foci of the disease. The degree of vascularity, of succulence, and loose coherence among the adjoining tissues serves as a measure of the rapidity with which this progress is effected, it being very rapid indeed where all these factors coexist in a high degree, as about the tongue, but comparatively slow when they are absent, as on the skin of the extremities. Over and above all this, the cells thus affected seem to acquire an automatic independent existence of their own; they grow freely (like a grafted plant) at the expense of the whole organism, not merely in the sites to which they are conveyed and lodged by currents of blood or lymph, but also on the surface of mucous or serous membranes in distant spots, to which they have been brought accidentally. Thus, in epithelioma of the tongue, we constantly see, late in the disease, little islands of white epithelial deposit dotted about the mucous membrane of the palate and the inner surface of the cheeks. These, if the patient survive long enough, grow vigorously and ulcerate, exactly like the parent disease. The same phenomenon is observed, with less frequency, in the peritoneum, in certain forms of ovarian cancer; also in other tracts of the digestive or respiratory mucous membrane. This independent vitality of the cells is a very curious feature in malignant disease, and would indicate that the protoplasm has undergone some very important change, whose nature we are at present utterly unable to estimate.[1]

In the other varieties of cancer the process is much more obscure; we cannot see the irritant at work, and are often quite unable to trace the causation. Analogy, however, can hardly allow us to doubt that the chain of events, however modified by local or general influences, must be substantially the same—that *all cancer is the result of irritating influences upon protoplasm*. One point in this connexion to which I would particularly direct your attention is the remarkable frequency with which we find conditions of mental depression and worry immediately preceding the development of all malignant disease not referable to direct mechanical causation. Occasionally we find prolonged bodily illness a forerunner; very frequently hard work, want of sleep, insufficient food, pecuniary troubles, loss or illness of relatives, &c. Even cancer following a blow or fall might be referred to the locally lowered vitality induced by such injury (though this may appear rather far-fetched). At any rate, I am bold enough to say that, with sufficient knowledge of the patient's surroundings, we invariably find debilitating causes, local or general, immediately preceding the appearance of a cancerous tumour, of whatever nature, not due to obvious mechanical irritation; and that very frequently, under such circumstances, we are forced to regard them as the direct, and not merely as the predisposing, excitants.

Again, it appears to me highly suggestive that the sole drug to which we invariably have recourse, sooner or later, in the therapeutic treatment of cancer not amenable to surgical measures—I need hardly say that I allude to opium and its derivatives,—is a powerful sedative. We give this, not by any means merely to relieve pain, but with the well-grounded expectation that some amelioration in the patient's general condition will ensue. We also aim at securing, as far as possible, perfect tranquillity of mind and body (again addressing ourselves to the nervous system); and I may be allowed to say that in the Cancer Hospital one is often greatly surprised at the improvement which, in advanced and apparently hopeless cases, temporarily follows that method of treatment. Unfortunately such improvement does not, as a rule, continue; and too often the local disease does not exhibit any marked change for the better. In one very remarkable case, however, still under my care, the treatment was rewarded by such an alteration in both local and general conditions that I am almost tempted to dignify it by the name of a cure.

A lady operated upon for advanced scirrhus of the breast and axillary glands, in 1880, subsequently had recurrence under the cicatrix implication of the opposite breast by means of a chain of nodules in the skin, stretching across the back. The skin of the trunk, back and front, was thickly studded with flattened nodules, varying in size from a pin's head to about an inch and a half in diameter. There

[1] One characteristic and very familiar feature of scaly epithelioma (to which, as it may be thought to indicate some peculiar idiosyncrasy of the neoplasm in the same manner as the acini have been considered an idiosyncrasy of scirrhus, it would be well here to allude) is the "globes epidermiques" or "birds' nests." We have here to deal with cells whose natural function is to secret mucus, and the only rational way, to my mind, of regarding this phenomenon is to look upon the "globes epidermiques" as collections in pockets of the connective tissue of cells which have, so to speak, carried this function into "private life," which have not entirely lost their natural tendency to secrete mucus, the result being a mucoid degeneration of the whole group. I fail to see any reason for speaking of "endogenous cell-formation" in this connexion, and the phenomenon is best seen where the connective tissue stroma is loosely coherent with meshes very coarse, the whole tumour(epithelioma of the vulva) here consisting of little else than "birds' nests."

were also numerous deposits on the face, scalp, and thighs, a pulse of 117, quick and embarrassed respiration, extreme prostration, anorexia, and vomiting; much reason to fear extensive implication of internal organs. Indeed, one would briefly have described the patient as "one mass of cancer from head to foot"; and at her worst point I myself did not expect her to live more than a month or six weeks. Yet, under the combined influences of rest, careful nursing, and morphia, all these immense skin deposits, together with that in the remaining breast, have almost entirely disappeared; there has been a corresponding improvement in the general condition; the morbid process seems completely arrested; and the lady, though still leading a passive and vegetative existence under the influence of morphia, is able fairly to enjoy her life.

I am quite unable to class this case with those atrophic forms of cancer we not unfrequently meet with, especially about the female breast. It is altogether on a different footing so far as regards the immense improvement, from any other that I have yet met with. The only explanation I can suggest is that, in the first place, the treatment was thoroughly adopted before ulceration had taken place; in the second, that I was able to place the patient under more favourable conditions, to secure a more purely vegetative existence, and more perfect immunity from worry and wear and tear than any other whom it has yet fallen to my lot to treat.

Another point, which (as I have not been able to work it out with hospital patients, and as there are many difficulties in the way of any scientific investigation) I offer only as a suggestion for those who may be in a better position for making such inquiries than myself, is this:—I have some slight reason to believe that the female breast is an organ of emotion; that depressing emotions, especially, are accompanied by corresponding mammary sensations (in some women at least), even when there is no question of pregnancy or of lactation. Of course, women vary very materially in degree of emotional excitability; and I need hardly point out the difficulties of obtaining reliable evidence in such a matter as this. But taken in conjunction with the well-known proneness of the female breast to cancer, and to the indubitable influence of mental depression in exciting this, I venture to think that the point is well worth bearing in mind, and of investigation, as occasion may serve.

One word as to a bacterial hypothesis to account for the phenomena of malignancy. I have already alluded to the fact that there is a fashion in medical opinion, and just now bacteria are extremely in fashion. Besides, it would be extremely convenient if we could call in the aid of a bacillus or micrococcus to account for the strange phenomena of proliferating protoplasm which we find in cancer. Yet, apart from the fact that no one has yet succeeded in discovering such (although no doubt carefully looked for in innumerable instances), there seems to me a very marked distinction between cancer on the one hand, and on the other all the diseases hitherto referred to bacterial agency. In the latter there has always been either evidence or else great suspicion of *contagion*, which evidence has of late years become much stronger. To leprosy I need hardly allude. To tuberculosis the suspicion of contagiousness has long attached, although by lapse of time the contagion is weak among Europeans; and it is not till the malady finds fresh and virgin soil, as among the savage tribes,[2] that we are able to recognise the phenomenon in its full vigour. By malignant disease, on the contrary, no suspicion of contagiousness has ever been incurred, unless it may be in a few extremely rare instances, which could hardly fail to occur as a mere matter of coincidence. This fact, to my mind, renders it highly improbable that we shall ever be able to refer the latter to any bacterial excitant.

Briefly to sum up what I have said, the phenomena of malignancy result from conditions which irritate normal protoplasm, cause it to proliferate abnormally, and to assume a quasi-independent parasitic vitality. These conditions may be mechanical; in a much larger proportion of cases they are neurotic. That is the furthest point we have yet reached; nor do I see how our knowledge of cancer can make much advance until we know far more than at present about the ultimate properties of protoplasm, and the manner in which this is influenced by states of the nervous system.

Bayswater, W.

[2] Vide De Quatrefages: 'The Human Race.'

CASE OF

FEMORAL ANEURYSM CURED AFTER ELEVEN HOURS' INTERMITTENT DIGITAL AND INSTRUMENTAL COMPRESSION.

BY JUSTIN F. DONOVAN, M.D.,
SURGEON, ROYAL NAVY.

(Communicated by the Director-General of the Medical Department of the Navy.)

LORENZO B——, a Maltese, aged thirty-eight, stoker, a well-nourished though anæmic man of abstemious habits, was the subject of syphilis (chancre and non-suppurating bubo) before marriage; secondary eruption was not noticed. On the 16th of June, 1886, whilst coaling ship at Suakim, he experienced a sharp pain in the left groin; this was followed by a swelling, and on presenting himself to the medical officer of his ship, "a pulsating tumour in the left groin was detected, with a distinct bruit." On admission to the Naval Hospital at Malta, on the 19th of July, a pulsating tumour, about the size of a small lemon, was seen immediately below Poupart's ligament, and extending half an inch below it (proximal side); no bruit could be detected. The pulsation, which was very strong, could, however, be checked on making forcible compression on the external iliac artery. The patient complained of only slight pain at the seat of the tumour. He was put on low diet, confined to bed, and ordered to take an ounce of iodide of potassium mixture (ten grains to the ounce) three times a day. Pulse, 72; temperature, 98°; urine free from albumen. On the 26th the diet was reduced to one pint of chicken broth, one pint of milk, four ounces of bread, and ice to suck when thirsty. Iodide of potassium (fifteen grains to the ounce) to be taken as before. Digital pressure on the external iliac artery for an hour and a half was carried out, and was borne very well, the part compressed having been previously shaven and dusted over with oxide of zinc powder. On the 27th there appeared to be a slight diminution of the impulse. Pressure (digital, and a pad with a 7lb. conical-shaped weight suspended from a cross bar and resting on the pad) was kept up for two hours and a quarter, at the end of which time the patient became restless, and appeared to suffer a little from the pressure. Pulse 80; temperature normal. Iodide of potassium (one scruple to the ounce) to be continued. On the 28th, the pulsation in the tumour was markedly diminished. Temperature normal; pulse 84. A hypodermic injection of one-third of a grain of morphia having been administered, digital pressure (assisted by the weight) was applied for seven hours and a quarter unremittingly, and, at the expiration of that time no pulsation could be detected in the tumour. In the evening the patient felt very weak; pulse 90, feeble; the extremities were decidedly cold, especially the left foot and leg, although they were enveloped in cotton-wool and a flannel roller; no numbness or discomfort of any kind was complained of, though there was lividity of the toe-nails and diminution of the temperature of the limb for a few days. Pulsation in the left posterior tibial artery was not detected until August 4th, (seven days after the consolidation of the aneurysm). Up to the present (twenty-three days after consolidation of the sac) there has been no return of pulsation in the tumour, and the patient is now walking about, and complains only of very slight comparative weakness in the affected limb.

Royal Naval Hospital, Malta.

PROPOSED CONFEDERATION OF SPECIAL SOCIETIES IN THE UNITED STATES.—At a meeting of committees of various Medical Societies, which assembled at Washington on the 24th ult., the following resolution was proposed by Dr. Pepper and carried: "That it is desirable that the following Societies—the American Surgical Association, the American Ophthalmological Society, the American Otological Society, the American Neurological Association, the American Laryngological Association, the American Gynæcological Society, the American Dermatological Association, the American Climatological Association, and the Association of American Physicians and Pathologists—shall arrange for a conjoint meeting in the city of Washington in the month of September, 1888, and subsequently at intervals of three years, at the same time and place.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

HOSPITAL FOR SICK CHILDREN, GREAT ORMOND-STREET.

TWO CASES OF LITHOTOMY IN CHILDREN; RECOVERY; REMARKS.

(Under the care of Mr. BERNARD PITTS.)

THE following two cases of lithotomy by the supra-pubic and the lateral operations are exceedingly good examples of the method of extracting stones entire, as now practised, from the bladder of male children. The remarks by Mr. Pitts are of importance, especially where he draws attention to a modification in the extraction of the stone after lateral lithotomy, by means of which no damage is caused to the neck of the bladder. Even with this modification, could we be certain of a result such as that obtained in the second case, the diminished risk, much more rapid recovery, and lessened inconvenience during convalescence, would induce the majority of surgeons to adopt the supra-pubic method.

CASE 1.—A boy, aged three years and a half, was admitted on August 17th, 1885. He was thin and pale, and had had some of the symptoms of stone for about a year. On examination Mr. Lewis, the house-surgeon, detected a stone with the sound. Shortly after admission Mr. Pitts made a rectal examination under chloroform and ascertained that the stone was of small size, movable, and shaped like a date-stone. On September 9th he made an incision as for ordinary lateral lithotomy, exposed the staff, and then passed a probe-pointed director through this limited opening into the bladder. The opening was slightly enlarged by means of a probe-pointed bistoury, so that the director moved easily in the bladder. The staff was now withdrawn, and by supra-pubic manipulation the stone was made to present at the opening, and was extracted without any special difficulty. The manipulation was very gentle, and by a little patience the stone was made to present in its proper axis. Neither finger nor forceps were introduced into the bladder. The bleeding was very slight, and the patient made a good recovery. He began to pass urine naturally after ten days, and left the hospital quite well some six weeks later. The stone proved to be of the size and shape of an ordinary date-stone, and consisted mainly of uric acid.

CASE 2.—A boy aged three years and seven months was admitted on September 1st, 1886, with symptoms of calculus, which had existed for six months. On sounding, a stone could be felt, but the ring was not very clear. On examination by rectum, a small round movable stone could be plainly felt. On September 8th, with the assistance of Mr. Hinds, the house-surgeon, Mr. Pitts performed supra-pubic lithotomy. A soft catheter was passed and retained by a rubber band tied round the penis. After washing out the bladder, two ounces of weak boracic solution were retained by a plug fixed in the end of the catheter. A square mattress-like indiarubber bag was then introduced into the rectum and inflated with air. The bag had been kindly lent by Mr. R. W. Parker, who had found by experience that this was the best shape. The bladder was now easily reached by a small incision just above the pubes, and a vertical opening of an inch in length was made into it. The stone was extracted by a pair of ordinary dressing forceps; it consisted of uric acid coated with phosphates, and was of the size and shape of a small marble. Five catgut sutures were passed across the opening in the bladder, avoiding the mucous membrane; and after carefully washing through the catheter, the sutures were drawn together and the external wound was closed by silk sutures, a small drain being placed at its lower angle. The rectal bag and catheter were withdrawn, and the wound dressed with iodoform. Three hours after operation the child passed urine without pain, and the catheter had never to be used. On September 11th the wound was dressed and the silk sutures and drain removed. The temperature had been normal since the operation, and the child free from pain, and passing urine quite naturally. On the 15th, one week after operation, the boy was allowed to get up. The wound was then completely healed, and he left the hospital on the 20th, quite well.

Remarks by Mr. PITTS.—The introduction of the finger and forceps into the bladder of a young child has always seemed a severe and unnecessary procedure when the stone is of small size. One was led, therefore, in the first case to modify the ordinary lateral operation, and thus avoid any stretching of the neck of the bladder. By rectal examination the exact size and shape of the stone had been ascertained, and it was also known that it could be easily moved to any part of the bladder. With the director as guide into the viscus, it would, in case of failure by manipulation to seize the stone, have been quite easy to enlarge the opening and introduce forceps. In the second case, there was the same certain information as to the size and shape of the stone, obtained by the rectal, or, as it might be termed, bimanual examination. The supra-pubic method of operation was selected, so that by suture of the opening one might shorten the period of recovery and avoid the disagreeable after-leakage of urine. The amount of fluid in the bladder at the time of operation was only two ounces, so that no extreme distension of the organ was made, and it would seem important not to overdistend if the after-use of the catheter is to be avoided. The opening in the bladder was made quite regardless of any projecting end of the catheter, and, in fact, this was not felt for. Confining oneself to the consideration of the treatment of small stones in male children, when the supra-pubic opening can be of limited extent and the operation can be done without any bruising of the cut edges, it would appear from this case, and from cases recorded by others, that supra-pubic lithotomy gives the quickest and safest recovery, and I can hardly believe that lithotrity in boys under five or six years of age will ever be generally adopted.

QUEEN CHARLOTTE'S LYING-IN HOSPITAL.

A CASE OF HERNIA INTO THE UMBILICAL CORD.

(Under the care of Dr. HOPE.)

FOR the following notes we are indebted to Mr. J. Frail Harries, who was acting as house-physician *pro tem.*

In the afternoon of Aug. 25th Mr. Harries was summoned to the Labour Ward to see a child just born, who, the nurse said, had a swelling at the umbilicus. The child was a healthy-looking boy who, with the exception of the rare congenital malformation described, was in every respect well developed, and weighed 7¼ lb. A hernial protrusion into the umbilical cord was found, about the size of a hen's egg. Upon examination Mr. Harries concluded that he had to deal with a partially reducible enterocele, with a sac, the neck of which was formed by the skin and the fundus by the coverings of the cord, and with the umbilical vessels spread out over the right side of it. In the absence of the visiting physician, Dr. Hope, he decided upon the following operation. Mindful of the inevitable results of separation of the cord and the exposure of the enclosed intestines, the child having been anæsthetised with chloroform, the sac was opened. The contents of the sac were both large and small intestine, of which five inches of the latter were adherent to the interior of the sac. The bowel beyond, being slightly congested, was quite healthy, and was dissected off without any great difficulty. What he believes to have been the vermiform appendix was so intimately fused with the tissues of the cord as to render dissecting it off impossible; it was therefore ligatured with fine carbolised catgut, and divided close to the sac. After slightly enlarging the hernial opening, the whole contents of the sac were returned into the abdominal cavity. The opening was then closed with a double ligature of thick catgut, in exactly the same way as a nævus is strangulated by Liston's method. The cord with the sac was then cut off about half an inch from the umbilicus. The operation was performed with every antiseptic precaution, and the wound dressed with corrosive sublimate gauze.

During the next fourteen days the wound was dressed twice, and each time looked quite healthy; at the end of that time the small remaining portion of the cord separated, and the ligature was removed, the opening being firmly closed. After the operation the bowels acted naturally, and

the child took its nourishment freely, some slight sickness being the only trouble. During a rapid convalescence no symptoms of importance were manifested.

HOSPITAL FOR WOMEN, LIVERPOOL.

THREE CASES OF PYOSALPINX RECENTLY TREATED BY ABDOMINAL SECTION.

(Under the care of Dr. FRANCIS IMLACH.)

CASE 1.—A. C——, aged forty-two, admitted July 7th, 1886, with a history of constant pelvic pain and menorrhagia since the birth of her tenth child seven years ago. Abdomen swollen and tender, uterus retroverted, and pelvis blocked with a mass which is everywhere painful; pulse 125 per minute, temperature 100°. Diagnosis: pyosalpinx, with general peritonitis. On July 13th an abdominal section was made, Dr. Davies giving the anæsthetic, and Dr. Edis assisting. When an incision was made there was a quick and copious gush of thin sero-purulent fluid. What remained was soaked up with sponges, and a quantity of black fluid blood was removed from the pelvic cavity. Both tubes were considerably enlarged, and from each of them over an ounce and a half of pus was withdrawn by an ordinary rectum trocar. When their extensive adhesions had been separated, both tubes and ovaries were removed, and the whole abdominal cavity thoroughly washed with a plentiful supply of plain warm water. A drainage-tube was inserted, and the two-inch incision closed with silk sutures. The patient made an excellent recovery, her pulse only twice rising to 90, and on Sept. 6th she came to report herself as perfectly well. The specimens are now in the possession of the Inquiry Committee.

CASE 2. E. M——, aged thirty-five, sent in by Dr. A. Macdonnel on Aug. 17th. Married eighteen years; no child or miscarriage. Had an abdominal tumour as large as the pregnant uterus at the eighth month, which was first noticed twelve months since. On admission the temperature was 104° and the abdomen excessively tender; but a week previously she had been able to walk about, and before that had been on the dramatic stage as a professional singer. The mass extended far down into the pelvic cavity, and the slim uterine cervix could be felt in front of it. The abdominal tenderness prevented an accurate diagnosis; but as her condition became rapidly worse, and she was evidently sinking, she consented to laparotomy on Sept 1st. The tumour was found to be the left Fallopian tube. It was universally adherent to the abdominal wall in front and to coils of intestine. Its muscular wall was nearly an inch thick, and after it was cut open seven pints of thick yellow pus were removed from its cavity. There was also about an ounce of pus free in the peritoneal cavity, due to an escape from the tube in the left hypogastric region. It was while this portion of the abdominal cavity was being irrigated with warm water that the tumour was identified as an abscess of the left Fallopian tube. As it was impossible to remove the tube, it was stitched to the sides of the abdominal incision, and a glass drainage-tube was inserted into the peritoneal cavity where the rupture had taken place. Next day the temperature was 98·8°, and though it rose to 102° on the third day the pulse remained always good, and on Sept. 23rd she was almost ready to leave the hospital. Dr. Davies gave the anæsthetic, Dr. Edis assisted, and Dr. H. Samuel was present as a visitor.

CASE 3.—E. F——, aged twenty-three, was sent into hospital by Dr. Solomon on Aug. 4th. Since her marriage she had suffered from syphilitic psoriasis, and had had three miscarriages. Her chief complaint was of a constant pelvic pain. Per vaginam, the left tube was distinctly felt to be enlarged. After a month's rest in bed her pain was worse, and the tube, which contained fluid, larger. Though there was no elevation of temperature, her general health was evidently affected, and on Sept. 4th abdominal section was performed. The left tube was densely adherent, deep in the pelvis, and while the adhesions were being separated a quantity of pus escaped from it. After the tube and ovary had been removed the pelvic cavity was irrigated with warm water. The right tube and ovary, being perfectly healthy, were left untouched. No drainage-tube was inserted, and since the operation her pulse and temperature had remained normal. Though completely convalescent, she was kept in hospital until her menstrual period had recurred. Drs. Davies and Samuel were present at the operation, and the diseased tube is in the possession of the pathologist of the Royal Infirmary.

Remarks by Dr. IMLACH.—These are the most recent cases of chronic inflammatory disease of the uterine appendages which I have submitted to surgical treatment. The first of them is a good example of the late stage of pyosalpinx; the second is the largest example of this pathological condition I have yet met with; and the third is an ordinary example of its early stage.

Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

Complete Sections of Brain.—Hemiatrophia Facialis.—Malignant Cysts of Neck.—Excavation of Lung simulating Pneumothorax.—Cancer of Thyroid.—Dermoid Cyst of Testis.—Carcinoma of Prostate.

THE first ordinary meeting of the session of this Society was held on Tuesday last, Dr. J. S. Bristowe, F.R.S., President, in the chair. A copy of the new volume of the Transactions was placed on the table for inspection. There was a splendid display of complete horizontal, vertical, and transverse sections of normal and abnormal brains made by Dr. Hamilton of Aberdeen.

Dr. HAMILTON showed Complete Sections of a Brain in a case of tumour of the occipital lobe, probably secondary to carcinoma of the lung. The whole of the hemisphere was thickened by an enormous network of Deiter's cells, an overgrowth of the glia cells, which kind of process Meynert showed three years ago, before the German Neurological Congress, to be perhaps invariably associated with tumours of the brain. It was possible that this infiltration might account for descending optic neuritis, which was the frequent accompaniment of any kind of tumour of the brain. Endothelial cells were the chief components of the tumour of the occipital lobe. The second abnormal brain shown was taken from a woman, aged fifty-three, who was an imbecile of the lowest type. A cast of the brain was exhibited. The first and second frontal convolutions were absent on the right side; the internal capsule and island of Riel were destroyed on the left side. Dr. Hamilton then gave an account of his process of preparing complete sections of the brain. The vessels at the base should be cut sufficiently long to enable injection of the brain to be carried out. Müller's fluid was used, and the injection made by an apparatus for supplying continuous pressure so as to enable the artificial injection to be kept up for one week at least. At the end of this time the brain is cut into slices an inch thick, and in any desired direction. Each of these slices is then placed in a mixture of sugar and gum. Three mixtures of sugar and gum frozen at different temperatures may be used according to the delicacy of the tissues, some of which cut better at higher, others at lower temperatures. A microtome of gigantic dimensions is employed, and the sections are neatly thrown off the knife and floated in water on to a glass slide coated with gelatine; the section is next covered with a second layer of gelatine, and the whole specimen is dried. Embedded in the double casing of gelatine, it is next immersed in potash for two hours, and then placed in Müller's fluid. Under this treatment the preparation swells up, and the area of the section is much increased, the differentiation of structure thereby becoming very marked. The section is then submitted to a running stream of water for two hours. After this washing it is embedded in glycerine jelly treated with glycerine potash, and the narrow ring of carbonate that forms between the two layers of gelatine is removed by effervescence by acetic acid glycerine. The final stage is the cementing of the specimen, and this is a very difficult part of the process. It was found that asphalte was the best medium in which to cement the preparation.

Mr. F. S. EVE exhibited a living specimen of Right Hemiatrophia Facialis in a woman aged forty-two. The atrophy was limited to the region supplied by the third division of the fifth nerve, and involved the skin, subcutaneous tissues, and muscles, but not the bone. The masseter had almost completely disappeared, also the mylohyoid, and there was wasting (not very great) in the temporal fossa. The hair was thinner and greyer on the right side; the tongue and

eye were unaffected. The atrophy began at the age of seventeen with severe neuralgia, and it continued for some years. The case was probably one of pure trophoneurosis. The left side of the face is usually affected in this disease.

Mr. F. TREVES read notes and showed microscopic specimens of three cases of Malignant Cysts of the Neck. The clinical course of all three cases was the same. The growths were regarded as cystic because they contained very little solid matter. In two the cystic contents were of mucinoid nature; the contents of the third was pure lymph. Two of the cysts were carcinomatous; the third epitheliomatous. A living specimen, probably epitheliomatous, was also exhibited. The first case was a cellarman, aged fifty-three. The tumour was situated in the left side of the neck; the skin over it was red and brawny. It commenced as a small solid mass, apparently beneath the sterno-mastoid muscle, and was regarded as a "chronic abscess" until an exploratory puncture gave exit to a clear glairy fluid which was pronounced by a chemist to be mucin. The cyst proved to be deeply attached. It discharged continuously, was treated with an injection of iodine, the discharge from it became muco-purulent, bleeding set in from the superior thyroid artery, and death ensued. The necropsy showed an imperfect cyst, whose walls were half an inch thick at most, and whose internal surface was thrown into ridges and bridges like the columnæ carneæ of the ventricles of the heart. It was merely suggested that the mucoid degeneration of the cancer cells in this case might be associated in some way with the atrophy of the thyroid gland (which was also an observed fact), regard being had to the alleged mucinogenous function of the thyroid. Streckheisen had written about accessory thyroid glands near to the hyoid bone. The diverticulum of epithelium from which thyroid tissue was developed was in direct communication with the foramen cæcum of the tongue; so there was enough epithelial tissue in this neighbourhood for the development of a carcinoma. The second cyst came from a woman aged fifty-two, in which the solid carcinoma formed one-sixth part of the whole mass. This cyst was removed during life; the internal jugular vein was cut, and the brachial plexus exposed; ten days later the woman died from exhaustion. The cyst was of exactly the same structure as in the first case. The third case was epitheliomatous. It occurred in a painter aged forty-three, who was operated on for epithelioma of the right side of the tongue in June, 1885. After ligaturing the lingual artery, the right side of the tongue was removed successfully. In August, 1886, the man, having been engaged in his work till this time, presented himself with a lump in the *left* side of the neck. The skin over it was red and brawny; puncture of the cyst yielded a clear fluid found chemically to be pure lymph. The further course was characterised by bleeding. After death the cyst wall was found to be not more than a quarter of an inch thick in any part. There were no secondary deposits. Mr. Treves then gave an exhaustive account of the modern and ancient literature of the subject. Cases were quoted from the Pathological Transactions, recorded by Sharkey, Godlee, and Morell Mackenzie.—Dr. HADDEN said that the mucinogenous function of the thyroid gland was not a settled question, and joined issue with Mr. Treves on the suggestion as to the origin of the mucin in the cancer cells of the first case related.—Mr. H. T. BUTLIN spoke of a cystic tumour of the neck in a man from whom he had previously removed an epithelioma of the tongue. What was apparently a secondary growth appeared in the neck on the same side as the disease of the tongue. Mr. Butlin was surprised that so large a gland had formed in so short a space of time; but it turned out to be largely cystic, and the contents of the cyst was lymph. He thought the lymph had been prevented from escaping along the efferent lymphatics, and hence the cystic accumulation in the gland.—Mr. MARMADUKE SHIELD referred to a case of cancer of the thigh, in which mucinoid changes had occurred and led to the formation of a complete cyst.—Mr. D'ARCY POWER also referred to a cyst of the neck, containing clot and glairy fluid, which was supposed to be in the right lobe of the thyroid; the cyst had exceedingly thin walls, and was probably of the same nature as those described by Mr. Treves.—Mr. A. QUARRY SILCOCK thought the microscopic structure of the first cases described was of epithelioid or endothelioid characters, arising in connexion with lymphatic endothelium, and not epithelial strictly. He suggested that the specimens be referred to the Morbid Growths Committee.—Dr. BRISTOWE mentioned a case of carcinoma of the pelvic organs, in which the secondary growth in the groin took on the character of a large cyst filled with limpid fluid. A second case was mentioned of sarcoma in the abdomen, in which a similar cystic change had occurred.—Mr. TREVES acquiesced in the suggestion that the specimens be referred to the Committee.

Mr. G. STOKER showed a specimen of Cancer of the Thyroid removed from a woman aged fifty-six. The thyroid gland was deeply fixed; both the vocal cords were paralysed. Tracheotomy was performed, and death followed from bronchitis. The left lobe of the thyroid was the larger, and the left recurrent laryngeal nerve was greatly atrophied; the right nerve less so; the corresponding laryngeal muscles were wasted. Microscopically none of the original structure of the gland could be detected. There were no symptoms of myxœdema.

Mr. SEPHEN PAGET showed a specimen of Sarcoma of the Left Lobe of the Thyroid. It had grown through the trachea and pressed on the œsophagus, and also involved the vagus and recurrent laryngeal nerves. The mechanical effects of the growth would, however, be sufficient to account for all the symptoms of dysphagia and dyspnœa.

Mr. D'ARCY POWER exhibited a Dermoid Cyst of the Testis. It was an example of this rare congenital tumour. Only ten cases had been placed on record in a period of 200 years. The tumour was removed from a child aged four years. It had an ovoid shape and contained no nodules, and involved the whole of the body of the testicle. It measured 2¼ in. by 1½ in. Its contents were gelatinous. Small delicate hairs, fibrous tissue, and cartilage were discovered. The whole of the gland tissue had disappeared from the body of the testis. The wall of the cyst showed epithelial cuticle, rete Malpighii, and corium, with non-medullated hairs and sebaceous follicles.

Dr. T. ACLAND showed a specimen of Excavation of the Lung which simulated Pneumothorax during life. The cavity was the result of tubercular disease. The expectoration was very slight. He thought it was important, though difficult to distinguish the two kinds of cavity during life.—Dr. MITCHELL BRUCE had seen several cases in which the diagnosis was difficult. The situation of the apex beat was of value in determining the question when the left side was affected.—In reply to Dr. H. White, Dr. ACLAND said there was no respiratory movement on the affected side.

Mr. E. HURRY FENWICK showed a Cancer of the Right Lobe of the Prostate taken from a patient aged fifty-one. The first symptom was difficulty in defecation, observed six weeks before death. The tumour projected into and partially obstructed the rectum. It rapidly increased in size, and fungated. The bladder and urethra were not invaded, but were pressed upon so as to necessitate the use of the catheter. Profuse hæmorrhage and almost complete obstruction of the bowel supervened, and left lumbar colotomy was performed, with great relief to the patient. The great rapidity of growth, the absence of all pain until ulceration occurred, and the escape of the bladder and urethra, were the chief features of interest.

The following card specimens were exhibited:—Dr. Pasteur: Ulceration of Main Branch of Pulmonary Artery from a Cavity at Root of Lung in a child of four. Mr. Larder: Mediastinal Tumour involving Superior Vena Cava (recent specimen).

MEDICAL SOCIETY OF LONDON.

President's Address.—Hernia of the Cæcum.

THE first ordinary meeting of this Society was held on Monday last, Mr. R. Brudenell Carter, F.R.C.S., President, in the chair. A copy of the new volume of the Proceedings of the Society was placed on the table.

The PRESIDENT read an eloquent address. He alluded to the losses the Society had sustained by the decease of four of its Fellows—Mr. Francis Mason, Mr. H. R. Bell, Mr. Sampson Gamgee, and Dr. Seaton—during the past year. He claimed for the medical profession the very highest place among the forms of mental activity now practised by mankind. What other professions could be compared with it? Lawyers were mainly occupied in supporting the contentions of their respective clients—an exercise which may probably be conducive to acuteness of perception, but which has no appreciable tendency towards the discovery of truth or the administration of justice. Theologians of various

creeds were mainly occupied in disputing about the interpretation of words—an occupation which, in the language of Dugald Stewart, produces a lively curiosity to know what is said, without any corresponding curiosity to know what is true. Politicians of all parties were chiefly occupied in tickling the ears of the uneducated by formulæ which are either deceptive or unmeaning, or in urging their followers to place confidence in some public man in whom they have long ceased to have confidence themselves. Mr. Carter was strongly of opinion that the time cannot be far distant when the medical profession will be generally cited as having shown the right path in the way of mental training, and when the members of other callings will begin to strive to profit by the example. The magnitude of an achievement is merely in proportion to its difficulty on the one hand, and to its usefulness on the other; and so when he contemplated each new step that is gained in medicine, and the results to the human race which may spring from it, he could not but think also of the mental attributes which such a step implies, of the patient labour, of the provisional acceptance and ultimate dismissal of many hypotheses, of the abandonment of even cherished errors, of the rejection of fallacies, of the steady pursuit of truth, and truth alone. The study of medical science was calculated to ennoble the intellectual as well as the moral being of man.

Mr. W. ADAMS and Dr. C. H. F. ROUTH respectively proposed and seconded the vote of thanks, which was carried by acclamation.

Mr. FREDERICK TREVES read a paper on Cæcal Hernia. He said that the hernia, though rare, was not uncommonly met with; it was most frequently umbilical in situation, but it was also to be found in the inguinal region, and less rarely in the femoral. It was most common in the congenital umbilical hernia. The text-books generally said it had no sac, and the French called it the "hernie akystique." Arnaud's was the first case on record, being one for which he performed resection in 1732, a permanent fæcal fistula being left. Mr. Treves maintained that in all cases there was a sac, which in the majority was perfect. He spoke of the anatomy of the cæcum, showing its mobility, the absence of so-called meso-cæcum, and its situation in 18 per cent. in the pelvis. Eleven times out of a hundred it could be turned up so as to touch the liver, and with the abdominal parietes removed it could be drawn down to the level of the trochanter. A careful description was given of the history of the statement that this hernia was sacless, commencing with Desault, who affirmed the point in 1796, passing on to Scarpa, who asserted that the peritoneum had the same arrangement in the sac as in the abdomen, in which belief he was succeeded by Pelletan, Hesselbach and Cloquet, Lawrence and Chelius. Lawrence's case of a sacless cæcal hernia was shown to be valueless. Mr. Treves next related his own experience. The first case was a potman, aged forty-one, in whom the rupture suddenly appeared fourteen years previously, and resulted in strangulation, for which he was operated on at St. Thomas's Hospital, the hernia having sloughed. He had no hernia after this for six years, when it appeared in the scrotum, and two years ago it "began to be double" and irreducible. Two tumours were found, with a pedicle seven inches long, at the operation, which was followed by complete radical cure. Another case occurred in a female, aged fifty-six, in the right femoral region; it had lasted two years, was reducible, and gave no trouble; it measured 4½ in. by 2½ in. There was a specimen in Guy's museum exactly like it. This acquired hernia was commonest in the inguinal region, in adult males, and on the right side. There were seven specimens in the museums and eight recent records; of these fifteen, twelve were provided with perfect sacs, two had imperfect sacs, and one was doubtful. Clinically the hernia was irreducible as the effect of its bulk, adhesions, and peritoneal connexions, and also from its liability to inflame (typhlitis) and to become obstructed, but rarely strangulated.—Mr. Lockwood, Mr. J. H. Morgan, and Mr. Sydney Jones joined in the discussion, and all admitted the justice of Mr. Treves' contention.

MEDICAL OFFICERS OF HEALTH SOCIETY

THE first meeting of this Society was held on the 15th inst., when the President, Dr. Alfred Hill, delivered an address, of which the following is an abstract.

Having thanked the members of the Society for the honour they had done him in electing him to the Presidential chair, Dr. Hill went on to treat of the various methods of sewage and house refuse disposal. His choice of subject, he said, had been influenced by two considerations: (1) that it had not, he believed, been dealt with by any former occupants of the chair; and (2) that at present many persons have not come to any definite conclusion on the matter. The term Sewage Disposal he took to embrace the disposal of excreta, whether it be intercepted from, or admitted into, the sewers. Among the former methods was that furnished by the midden privy—the most common receptacle in many towns,—the numerous evil effects of which, such as the pollution of the surrounding air, soil, and water, partly owing to the soakage of the filth into the adjoining ground, and sometimes even into dwellings, and the vile system of periodically emptying the putrescent contents into the streets, Dr. Hill graphically and fully described. The great dangers to health which attend the midden system led some years ago to the substitution for it of other systems free from its most glaring defects, and as in some towns a water-carriage system was not practicable, some form of interception was looked for, the principal object being to avoid contamination of the soil and to reduce as far as possible vitiation of the air. One, involving only a small departure from the old system, was adopted in Manchester, in which the old-fashioned cesspit was replaced by a small shallow one, with a special arrangement for the daily deposition of ashes on the excreta. Subsequently, movable receptacles of wood or metal, collected weekly, were substituted for the fixed ones; and this system, which is certainly superior to the midden, is now in use in Nottingham. In what is called the earth-closet we have as the absorbent dried earth instead of ashes. Theoretically this system, which is based on Nature's own method of deodorisation, is, Dr. Hill considered, absolutely perfect, but practically it is impossible to employ earth for deodorisation in large towns, for among other reasons it has been calculated that, with a population of 100,000, over 200 tons of suitable earth would be required per day. The speaker next referred to the "Goux" system, which he described as a modified form of the earth-closet, now in use in Halifax. Instead of dry earth, an encircling wall of lining material of a mixture composed of shoddy, sawdust, ashes, street sweepings, and other dry absorbent substances, is employed. In some towns no attempt has been made to add ashes or any other absorbent to the excreta in the pan, the object being to make from the contents a concentrated manure or *poudrette*, which shall be rich in ammonia, and consequently valuable. The advantages of this arrangement, when well carried out, were dwelt upon by Dr. Hill, who pointed out, however, that under the most favourable circumstances the Rochdale system, as it is called, has many drawbacks, among which he enumerated the following:—Pan-closets cannot be admitted into the interior of houses; they cannot safely be placed near to dwellings; their contents are liable to leakage by corrosion or to overflow, either by the carelessness of tenants in throwing into them bedroom and other slops, or from an unusual delay in emptying them. The men, too, are natually drawn from such a class that they too often perform their work in an improper manner; while the transport of the pans through the courts and streets cannot fail to lead to diffusion of offensive and noxious gases, and to the spilling of some of the liquid contents (which may possibly be specifically infected) along the route. The water-carriage system or sewage disposal was next reviewed. Dr. Hill reminded his coadjutors that within the memory of many living the introduction of human fæcal discharges into sewers was strictly prohibited; it afterwards was winked at, then freely permitted, and finally made compulsory, where sewers existed; so that now every town with a system of sewerage is already conveying a sewage essentially excremental in character, and, as is well known by those who have studied the question, the sewage of a town having no waterclosets is only slightly better than that of a watercloset town. Analytical results obtained by Dr. Frankland were given confirming this statement. Dr. Hill next dealt with the argument of those who hold that, owing to defective condition, sewers too often produce ill-health, showing that such an argument applies to any system when it is improperly carried out, while the frequent allegation of an insufficient supply of water was, he believed, often much exaggerated. The difficulty of obtaining land suitable for irrigation was, he considered, made far too much of, especially as experience had proved, as illustrated

by experiments made by Dr. Frankland, that soils of the most different kinds are or may be made capable of effecting the purification of sewage. With regard to the area of land necessary for the purpose, Dr. Hill stated that the quantity provided by the Birmingham Tame and Rea District Drainage Board was one acre to every 500 persons. The mode of treatment which the Birmingham sewage undergoes was next explained, the speaker asserting that after years of experience it had neither proved a nuisance to the adjoining residents nor injurious to health, while it had not turned out altogether unprofitable, as shown by the large quantities of produce sold each year, over £20,000 being realised for the sale of stock and produce last year. The speaker then touched upon the question of the quality of the produce, maintaining that the dangers which the opponents of sewage farms had alleged to exist from the consumption of milk, butter, and vegetables from such a source had no foundation in fact. The crowning merit of the water-carriage system consists in the fact that fæcal matter is carried away instantly and readily by gravitation, and sent to its proper destination, the land; while the defect of all conservancy methods is that they retain what is offensive and injurious until it becomes still more so. Disposal of sewage by throwing it into a river or the sea was condemned as wasteful and pernicious, and the reader stated that if the sewage of the metropolis, instead of being discharged into the Thames, were utilised on land as at Birmingham, it would realise in vegetables, milk and meat, a sum of £200,000. All processes of utilisation by precipitation alone—that is, without application of the effluent to land—were regarded as wasteful in an agricultural, and unprofitable in a pecuniary, sense. The question of dry house refuse was finally touched upon, and the employment of destructor furnaces strongly recommended. As a result of the consideration of the various mode of sewage disposal the following conclusions were arrived at:—1. That all intercepting or conservancy methods are false in principle and, on a large scale, hurtful in practice. 2. That the system providing for the most complete absorption and deodorisation and the most frequent removal is the one to be preferred where water-carriage is impracticable. 3. That the water-carriage system is preferable to every other on the grounds of convenience, health, and economy.

Reviews and Notices of Books.

Puerperal Convalescence and the Diseases of the Puerperal Period. By JOSEPH KUCHER, M.D. Pp. 311. London: Trübner and Co. 1886.

WE have read this unpretending little work with much pleasure, bearing as it does the mark of knowledge and experience, gained principally during four years' service in the Vienna Lying-in Hospital, and supplemented by well-used experience of private practice in New York. The array of facts in this little book is certainly highly commendable, and puts it at once on a satisfactory footing.

It will perhaps be best to begin by criticising what we regard as defects, and we will at once say that the book is really a work on antiseptics in midwifery, and on the nature, prevention, and treatment of puerperal fever. Where the writer deals with this subject, he is strong, clear, and trenchant; while his other chapters, though meritorious, by no means come up to the same standard. Again, some subjects are included which do not properly belong to the title of the book, such as post-partum hæmorrhage, rupture of the uterus, inversion of the uterus, albuminuria (i.e., of pregnancy), eclampsia, &c. These we shall not criticise; they are certainly not better treated than in the best text-books on midwifery, and some of them are very imperfect. Did our author's modesty suggest to him that a book on antiseptics and puerperal fever would not be sufficient, and that other subjects should be included? Here, we think, was his error. In any subsequent edition we strongly advise him to omit the whole of the other subjects between page 24 and page 176, and to expand the remainder, to which we will now direct our attention.

The first chapter, on Antiseptics, is short, but strong, plain, and clear. The author has no patience with those who nowadays talk about infection as *one* of the causes of puerperal fever, or about antiseptics in midwifery as things without which women can get on very well. Such persons, especially if teachers or writers, are to him positively dangerous, and we quite share his feelings. We are, however, surprised to hear him class corrosive sublimate with thymol in a list of antiseptics, "none of which has shown such signal superiority over the others that it could be called the lotion *par excellence*"; indeed, on page 279 we read that "corrosive sublimate has been found so much more efficient that it has supplanted carbolic acid in most lying-in hospitals." There can, we think, be no doubt that for the disinfection of the hands &c. corrosive sublimate *is* the lotion *par excellence*. Dr. Kucher speaks the language of experience when he says (page 21) that no man can learn to practise antiseptics by reading of them; he must practise and study them, and suspect all his own methods. "Among the Austrian peasants it is a common belief that fresh wounds should not be touched with the nails, as this would produce suppuration." Sponges are decried for washing the genitals, and quite rightly; cotton-wool, used once and destroyed, is far better. This chapter, which is only seven pages long, would bear expansion. Methods should be minutely described. We know of no work where this has been satisfactorily done for midwifery.

We now jump to page 176, Chapter XIX., concerning Puerperal Fever. Here we have a discussion on its nature; the relation of other causes to it—such as (*a*) contused tissues; (*b*) clots and remains of placenta; (*c*) gonorrhœa, previous endometritis, and vaginitis; (*d*) atmospheric conditions. Our author concludes that contused tissues, clots, and pieces of placenta can only be predisposing causes; that gonorrhœa, previous endometritis, and vaginitis are not causes of puerperal fever. As regards atmospheric conditions, the author quotes the Vienna Hospital (page 200) where, amidst hygienic conditions inconceivably horrible, antiseptics now restrict the yearly mortality to from 1 to ½ per cent.

As to "auto-infection," the author, while not denying its possibility from the analogy of pyæmia from internal suppuration, has never seen it. "Epidemics" are rightly assigned to their proper cause—infection. On page 213 we find a sub-heading, "Semmelweiss's theory of puerperal fever the only correct one"; this is a bold heading, but to our mind quite correct. Then follows a short account of the work of Semmelweiss (the subject has recently been brought before our readers in an interesting paper from the pen of Dr. Duka). Dr. Kucher very truly remarks that tolerance of the opinions of others is out of place in matters of life and death: the truth is to be upheld and falsehood condemned. In this connexion our author takes occasion to rehearse the articles of his religious belief, or rather unbelief. While these are doubtless interesting to himself, they do not bear on puerperal fever, and would have been better omitted. In the next division other theories are discussed—(*a*) puerperal fever as an essential disease *sui generis*; (*b*) caused by zymotic disease, especially scarlatina; (*c*) caused by changes in the blood ("nervous and vascular tension," effete products, &c.); (*d*) overcrowding. All these are very properly rejected.

The chapters on the Prevention and Treatment of Puerperal fever are good, but capable of improvement in the way of amplification and filling in of details. It is impossible to be too explicit on all these subjects, and minute directions as to the mode of using the principal antiseptics would be a great addition; nothing should be taken for granted. The advice, however, that is given is thoroughly sound.

The chapters on the Classification and Pathology of Puer-

peral Fevers are not quite satisfactory. The subject is, indeed, not yet unravelled, but it might be set forth more plainly; long quotations of pathological post-mortem details are out of place, and the main differences might be stated in a plainer manner.

The final chapter on Puerperal Mortality is based on the report of the Berlin Puerperal Fever Committee, and on Levi Meech's life insurance tables. These give appalling figures. No mention is made of Dr. Matthews Duncan's figures, based on the most careful inquiry yet made.

On the whole we heartily congratulate the author, and think that, with the alterations which we have indicated, his book may take far higher rank than he seems disposed to claim for it.

OUR LIBRARY TABLE.

Elements of the Comparative Anatomy of Vertebrates. Adapted from the German of ROBERT WEIDERSHEIM, of Freiburg-in-Baden, by W. NEWTON PARKER, of the University College of South Wales. 270 Woodcuts. Pp. 345. London: Macmillan and Co. 1886.—The original treatise of Professor Wiedersheim was published about two years ago, and was intended to constitute an introductory text-book for the student previously to his study of the author's larger Lehrbuch. The plan of the work is to consider the several organs, as the integumentary, skeletal, muscular, nervous, alimentary, respiratory, circulatory, and uro-genital systems, in the divisions of the vertebrata in succession, and to impress their chief characters on the student by means of clear and well-chosen diagrams. In this the author has thoroughly succeeded, always providing that the student possesses a certain amount of histological and zoological knowledge. Without this such a sentence as "In the Anoura, as well as in elasmobranchs, bony ganoids, and the higher vertebrata, the vertebræ are preformed in cartilage" would convey little meaning. The illustrations are extremely good, many appearing to be original, whilst others are drawn from recent memoirs. Mr. Parker, who has himself had a long and laborious training in biological science, has had the advantage of the large knowledge of his father, Professor K. Parker, in many points relating to the skeleton, and has rendered Professor Wiedersheim's rather difficult German into very readable English. The whole book may be read through with great advantage by any student desirous of acquiring a sound rudimentary knowledge of the comparative anatomy of the vertebrata, after he has worked for a year at histology and has familiarised himself with the names and principal features of the several groups of vertebrata.

The Journal of Anatomy and Physiology. Edited by Professors HUMPHRY, TURNER, and MCKENDRICK. Vol. XX. Parts 3 and 4.—This part contains the following articles: The Action of Infused Beverages on Peptic Digestion, by James Fraser, which is a continuation of a previous paper and shows the amount of peptones dialysed, estimated by the amount of organic nitrogen. It appears from these experiments that tea, coffee, and other infusions relaid the peptic digestion of most albuminoid food stuffs, probably owing to the action of the tannic acid they contain. 2. Mr. Arbuthnot Lane describes some Variations he has met with in the Human Skeleton. 3. Mr. Macdonnell gives a note on a case of Bicipital Rib. 4. R. W. Schufeldt gives in detail the Osteology of a species of Parrot named Conurus Carolinensis, and furnishes two plates, which are very carefully drawn. The same writer describes a Navajo Skull. 4. Bland Sutton contributes an article on the Origin of certain Cysts, Ovarian, Vaginal, Sacral, Lingual, and Tracheal; a subject that he has worked out in a very interesting manner. 5. John L. Gibson gives the result of an Experimental Research on Blood-forming Organs and Blood Formation. 6. Ernest Maddox records the results of his investigations into the Relation between Convergence and Accommmodation of the Eye. 7. Dr. Noel Paton describes the Nature of the Relationship between Urea Formation and Bile Secretion. 8. D'Arcy Thompson has a Study of the Hind Limbs of Ichthyosaurus, and Sir W. Turner gives a short article on the Lumbar Curve of the Spinal Column in several races of man.—Part 4: The principal papers in this part are—1. Wesley Mill's on the Physiology of the Heart of the Alligator. 2. Hingston Fox on the Functions of the Tonsils. 3. Maddox: a continuation of his former paper, which is both original and valuable. 4. Prof. Humphry on Spina Bifida. 5. J. Cowper on Pentadactylon Foot in the Dorking Fowl. 6. W. Curran on the Vitality of Wild Animals under Fire. 7. MacAllum, the Alimentary Canal and Pancreas of Acipenser Anisa and Lepidosteus. 8. Cunningham on Neural Spines of the Cervical Vertebræ as a Race Character. 9. Brooks on Variations in Nerve-supply to Flexor Brevis Pollicis. 10. Morphology of the Intrinsic Muscles of the Little Finger, by the same author. 11. Noel Paton and Lockhart Gibson give continuations of their papers commenced in Part 3.

Klinik der Verdauungskrankheiten. Von Dr. C. A. EWALD. I. Die Lehre von der Verdauung. Zweite Auflage. Berlin: A. Hirschwald. 1886.—The physiology of the digestive processes is a subject which is always of interest, and the more it is studied the more complex and delicate are these processes found to be. The various forms under which dyspepsia is met with, and their differentiation, will only be satisfactorily explained when we have arrived at a thorough knowledge of the normal conditions of digestion. Amongst those who have contributed largely to extend our knowledge in this direction is Professor Ewald, the second edition of whose lectures upon Digestion is now before us. The first edition is well known to English readers in Dr. Saundby's Translation, and it proved to be well deserving of the cordial reception given to it. The work has been thoroughly revised and brought up to date, and it is one which should be carefully studied by the scientific physician.

Ueber das primäre Erysipel des Kehlkopp. Von Dr. Ferdinand Massei Uebersetzt von Dr. Vincenz Meyer. Berlin: A. Hirschwald. 1886.—This is a carefully compiled monograph upon a rare disease—primary erysipelas of the larynx—by a Neapolitan physician, who in 1884 had an opportunity of seeing several examples of it. He is assured that it is not so rare as is generally believed, and gives grounds for stating that several cases of œdema of the larynx are really erysipelatous in origin. Two forms are distinguished: in the one constitutional symptoms predominate; in the other the local phenomena are chief, or develop together with those of general infection. The lines of treatment in this very formidable affection are laid down with precision: first, the free and constant employment (internally and externally) of ice; and secondly, scarification; and these failing to relieve, whilst asphyxial symptoms develop, tracheotomy must be resorted to. It may be added that out of the fourteen cases of which the author gives details, only three terminated fatally.

General Hospital for Sick Children, Pendlebury, Manchester.—This volume of abstracts of some of the medical and surgical cases treated during the year 1885 has been carefully edited by Drs. Ashby and Hutton and Mr. Wright. Table II. gives an analysis of fifty-six cases of croupous pneumonia, by Mr. C. J. Macalister The table of analysis of fifty-five cases of chorea is by Mr. H. T. Bury. Table IV. shows the distribution of the lesions in the fatal cases of tuberculosis. The surgical report contains many valuable abstracts of miscellaneous cases of surgical interest: we notice congenital sacral tumour, macroglossia, neuroma of posterior tibial nerve, and myxolipoma of thigh. The sequels to abstracts in former volumes are scanty, but nevertheless indicate a step in the right direction.

THE LANCET.

LONDON: SATURDAY, OCTOBER 23, 1886.

IN the selection of Dr. PAVY as the Harveian orator of the year the President of the College of Physicians made a wise choice. For HARVEY was pre-eminently a man of science—one of the pioneers who, as the College was reminded, preferred the path indicated by BACON to the older and well-trodden but far less satisfactory way of arriving at truth. "To search out and study nature by the way of experiment"—the maxim which HARVEY left to his successors, and which is so reverently taken as the text of each succeeding Harveian Oration—is the formula of the scientific investigator. We all know how the learned orator of the year has during his career as a physician acted up to the principles thus laid down by HARVEY; and it is not therefore surprising that, after the customary reference to the College benefactions and tribute to HARVEY'S own work, he should have chosen to dwell upon the progress which medical science is making in so rapid a manner by experiment. Ten years ago the topic in question—the influence of specific microbes in inducing disease—would hardly have been thought a secure one for such an address. We talked then, as for many years previously, of the germ *theory*, and many of the most enlightened and far-seeing physicians predicted that, like many another hypothesis, it would have its day, and cease to be entertained by any but a few enthusiasts. The mode in which the doctrine is now regarded is, however, far different from that. Thanks to the patient and skilful labours of many investigators, the facts accumulated concerning the life-history of pathogenic microbes have carried conviction to many a sceptical mind; and although, as may naturally be expected, much error has become mingled with fact, there is no question about the truth of the main principle, that the etiology of many so-called specific diseases is bound up with the presence in the human body of those microscopic parasites. The *imprimatur* of the Harveian orator reflects the conclusion to which the scientific mind has been irresistibly borne, and marks the revolution in our conception of disease which will probably be regarded in the future as one of the most important chapters in the history of medicine. But, as Dr. PAVY pointed out, the wider our knowledge of the sources of disease the more is it incumbent upon us to determine the methods of prevention and treatment. The aim of the physician is to dispel disease, and every new light thrown upon its nature should show him in what way this may most effectually be done. The remarkable facts of protective inoculation by means of attenuated virus are the direct outcome of experimentation, and whilst they serve to explain the theory of vaccination they point a way to further measures for dealing with infectious disorders. At the same time it may be hoped that in the case of most of such diseases the growth of knowledge concerning their etiology will lead to such measures of prophylaxis as may lessen the necessity for such a method of treatment. We are far from such a golden era at present, and must be thankful for the discovery of any methods which promise security from the ravages of infectious disease. Dr. PAVY illustrated this topic by a reference to Prof. PASTEUR'S inoculations for hydrophobia, and although he admitted that their efficacy was still open to question, he at the same time pointed out that they were based upon a knowledge of the facts of the malady. Yet there is one link wanting, which is present in the case of other diseases, such as anthrax, in which the practice of inoculation by attenuated virus has been proved of protective efficacy. The microbe of rabies has not yet been isolated and cultivated; for although a few months ago Mr. DOWDESWELL communicated its discovery in our columns, we are unaware of its having been confirmed. Moreover, it is curious that no sign of support or of refutation has come from the other leading bacteriologist, who shares with PASTEUR the merit of being one of the pioneers in this department. We are not aware that Prof. KOCH has undertaken any investigations into the question of hydrophobia; or, if he has, it does not appear that he has arrived at any definite results. It is a singular and not uninstructive state of affairs: on the one side, the enthusiastic scientist, who began life as a chemist, but whose researches led him to discoveries that in their turn suggested an explanation for morbific processes, is now throwing all his energy and time into one great experiment; and, on the other side, the whole civilised world is in an attitude of expectancy, watching for the result of that experiment. Our knowledge of hydrophobia and of its frequent long latency compels us to wait for the summing up of the results which shall test the value of the practice; whilst the certainty that many, perhaps the majority—of those who have flocked to Paris for inoculation were in no danger of hydrophobia at all, renders the correct estimation of results a work of great difficulty. We have lately witnessed in other parts of the world a similar resort to inoculation based upon the same principle of attenuation. In Spain Dr. FERRAN practised inoculations for cholera, and in Brazil Dr. DOMINGOS FREIRE has largely pursued the same line of treatment in yellow fever. Both claimed that their results were strikingly confirmatory of the value of the practice, and yet in neither instance has the scientific world been satisfied by their explanations, and in the case of one at least, the facts have been rejected by ample evidence. Is it not always so? The attainment of truth is difficult, and the way to it lies often enough through a maze of error; but we may be sure of this, that the methods of scientific induction rigorously applied cannot fail ultimately to lead us to it. Such, we think, is the lesson to be gained from the Harveian Oration, and from HARVEY himself.

THERE are evident signs that the interest in the forthcoming election of Members of the Medical Council is growing, and will continue to grow apace until the return of the voting papers to the registrars of the three divisions of the kingdom. It would be very disappointing if it were not so. The peculiar manner in which the Council has discharged some of its duties in years past, and the absence of all direct representation of the profession on it, have tended to lessen materially the interest with which the proceedings of this body have been watched. We have become too accustomed to long and fruitless discussions, to

repeated modifications in the curriculum, and to the almost exclusive representation of the special interests of individual universities and corporations. All this, however, must not close our eyes to the fact that the Medical Council has very important powers and functions, the proper exercise of which has a great influence upon the well-being of the profession and the public. Its duties and powers with regard to medical education, to the Register, and to the Pharmacopœia are in themselves most important trusts, and their bearing upon the status and prosperity of the profession is most obvious. Hitherto the only influence that the great body of the profession could bring to bear upon the Council has been through the medical press. But Parliament has at length conceded the principle of direct representation, and has carried it out to a limited extent. Henceforth the entire profession will be able to make its voice heard at the Council Board, and we trust that all who glory in their calling, and who are jealous of its honour and welfare, will not only themselves take part in the election of representatives, but will seek to excite interest in it in the minds of their fellow-practitioners. The principle of direct representation is in a great degree at stake at this election. Success in this case does not depend upon the acknowledged leaders of the profession, or upon the class of consultants; it depends mainly upon the interest and activity of the rank and file of the profession, and it will be nothing short of a disaster if they do not rise to their responsibilities. No means should be neglected which will serve to stimulate and widen the interest of the entire profession, and from this point of view it is encouraging to note the number of candidates who have come forward for the limited number of seats to be filled, and the activity of the various committees of their supporters. For the most part these committees are interested in the return of single individuals, but this must not render anyone forgetful of the fact that every registered practitioner in England and Wales will have three votes, and that these cannot be given to one or divided among two candidates, but must be given to three candidates, or one vote recorded for one candidate. Each voter will have a voice in the election of three representatives, and he will seriously fail in his duty if he does not exercise his right to the full. We must have no plumping, but each voter must strive to be represented by his full complement at the discussions and votes of the Medical Council.

It is important, again, to point out and to lay stress upon the fact that it will be entirely the fault of the general practitioners of England and Wales if they are not represented by three members of their own order, who can speak for them with authoritative voice. They vastly outnumber the class of consultants and specialists, and those more directly connected with medical corporations, universities, and schools. If they rise in their strength and demand this, which is but their just right, they may be confident that they cannot be outvoted. The franchise is democratic. The "classes" of the profession have hitherto had it all their own way in the Medical Council, and even now they will have a preponderating influence there. But the "masses" at length have it in their power to make their voice heard and to have their needs attended to. They cannot have this right taken from them; they can only lose it by voluntary surrender, and this, we trust, they will never permit. So far as England and Wales is concerned, the choice of candidates is large; but among all who are seeking the support of their fellow-practitioners, it is gratifying to notice that there is no one who can be said to be at present intimately connected with any of the corporations or medical universities. It is true of each and all of them that they will, if elected, represent the profession at large; and having obtained a seat on the Council by the votes of the general practitioners, they are not likely then, by their voice or their vote, to support the interests of the corporations alone. Not that we think that the true and best interests of these bodies are opposed to those of the profession at large. But it is impossible to ignore the fact that a too close association with one body is apt to produce a narrowness or even a selfishness of opinion in regard to it.

If only all the electors would sufficiently realise the greatness of their opportunity and of their responsibility, we should have no fear that from among the candidates already in the field three will be selected who will not only speak with a fresh voice on the Council, but will add greatly to the strength and efficiency of that body.

AFTER a comparative lull of nearly two years, we regret to find that the number of cases of lead-poisoning is again on the increase. There can be no doubt that the outcry raised in 1884 did good, and that managers of white lead manufactories, for a time, have endeavoured to employ, and to enforce on their workpeople, those means of protection which, when rigidly insisted on, afford a positive assurance against plumbism in its various forms. But with immunity comes carelessness: the foremen become negligent in enforcing, and the workpeople disregard, the precautionary measures provided for their safety, and soon fatal cases of plumbism begin to be reported in the newspapers, whilst many hands are disabled from work by colic and lead-palsy. Time after time the same thing occurs: there is a great outcry in the press; the inspectors of factories send in bulky reports; the Board of Trade rouses itself for a brief moment to make a minute or to issue an instruction; the manufacturers give orders to the foremen on the works; the old machinery for protection is set going again; the workpeople are closely watched and made to adopt the protective measures; and then again all goes well—only to break down when the immediate panic is over. But how are these relapses to be prevented? We see no way except by exacting an adequate fine from the employer for every case of lead-poisoning occurring on his works; or, perhaps better still, by placing all operatives engaged in manufactures likely to prove injurious to health under the protection of the Employers' Liability Act, so that every man poisoned by the negligence of his master in not providing adequate means of protection, should be able to obtain compensation. This, perhaps, would work better than fining the employer for each case of plumbism; since, in the case of the operative having brought the mischief on himself by negligence, the master would escape, provided he could show that the means of protection were adequate, and that he rigidly insisted on their employment. A case in point illustrates how difficult it is, even with the best means of protection and rigid inspection, to prevent careless hands from becoming infected.

During the visit of our Commission to Newcastle to inquire into the health of operatives engaged in chemical manufactories, one lead manufactory was visited the proprietor of which prided himself on the care and watchfulness exercised over his workpeople for their protection against plumbism. Yet, in spite of all his precautions, a certain class of his operatives were attacked. Strange to say, these were not engaged in the most dangerous part of the proceedings, but were young girls who carried the crude white lead in baskets to the grinding rooms. They had not to handle the lead, nor were they exposed to the fumes; the baskets from which any dust could come were carried on their heads, and this part was protected by means of a "hood." For a long time the cause of their infection remained a puzzle. The medical officer, however, having observed that the girls brought to him wore "fringes," he visited the factory one day during work-hours, and found the girls with their hoods on bearing baskets on their heads as usual, but, as he expected, nearly all had pulled their fringes from under their hoods, and these locks were found thickly encrusted with lead. But whatever further provision is made for the protection of workers in white lead manufactories should include all trades in which chemical agents likely to be injurious are used. How many and numerous they are, Mr. LAKEMAN, senior metropolitan inspector of factories, has told us in his interesting pamphlet, "Health in the Workshop." Lead is not only poisonous as white lead, but in all its forms, owing to its ready conversion into carbonate. Even shoemakers who cut strips of leather on lead plates frequently become subjects of lead palsy. Nor need we mention the well-known dangers of mercurial, phosphorus, and copper poisoning to those who work with these substances; whilst the investigations of our Commission at the chemical works in the north of England showed how great is the mortality amongst the operatives engaged in the chlorine chambers in the manufacture of hydrochloric acid.

THE address which Dr. ALFRED HILL delivered last week before the Society of Medical Officers of Health will undoubtedly serve a useful purpose. It places before the profession the result of many years' experience of different methods of dealing with excremental refuse, and discusses with much care the merits and disadvantages of each. It is now nearly twenty years since Dr. BUCHANAN and the late Mr. NETTEN RADCLIFFE visited many parts of England, and, comparing the various methods of refuse disposal which were in use, provided material which has since served to guide sanitary authorities in the modification of their own procedure or in the adoption of other means of removing the waste matter of life without production of nuisance. Dr. HILL'S "consideration of the various modes of house refuse and sewage disposal" is a fitting sequel to this report, for the large town of Birmingham, of which Dr. HILL is medical officer of health, has thought out the system which is most applicable to large communities, and, if we may judge from the opinion of its officer, has emphatically pronounced in favour of the London method of water carriage. There is undoubtedly a consensus of opinion which condemns the use of large receptacles for the retention of filth, of cesspools, and of middens. Towns which have adopted the pail system are able to show as a result a marked reduction in the general death-rate, but, as Dr. HILL points out, this is no matter for surprise, seeing that pails have replaced offensive middens, which no intelligent authority would desire to perpetuate. But the struggle between the pail and the water-carriage system cannot be said to have terminated. There are many who argue on economic grounds that the opportunities which the former afford for the fertilisation of the land and the avoidance of the cost which would be incurred in the provision of sewers and of water-supply give it a distinct advantage over the latter. Dr. HILL not unreasonably states that the preservation of health must take precedence of all other considerations, and then proceeds to show that an important return may be made by the adoption of a water-carriage system in its entirety, and this necessarily includes the utilisation of the sewage upon the land. Quoting the experience of Birmingham, he shows that the 1227 acres of land which receive the sewage of nearly 620,000 persons make a return of over £20,000 a year through the sale of stock and produce, and he argues that if London sewage could be utilised on land to the same extent as in Birmingham it would produce in vegetables, milk, and butcher's meat no less a sum than £200,000 per annum. Further, he combats the statements of those who urge that the produce is less agreeable and less wholesome than that obtained in the usual way, and that those resident near and upon a sewage farm are exposed to injury of health. The subject has received his close attention, and he speaks without the least hesitation upon these points.

The Royal Commission on Metropolitan Sewage Discharge estimate the annual value of London sewage to be £1,750,000, and express the opinion that the possibility of realising some of the value should be borne in mind in devising plans for its disposal, and only the necessity of freeing the Thames from pollution led them to advise that there should be no delay on this account in taking proceedings. But there is not much hope that London will enable further experience to be gained, for the Metropolitan Board of Works have recently surprised Londoners by their decision to ignore the recommendations of the Royal Commission. We commented but recently on the miserable substitute which they had provided for the more perfect scheme which was definitely recommended to them as the result of a detailed inquiry. For some unknown reason the Board cling to the position of the present outfalls, and are satisfied to attempt the precipitation of the sewage by chemical means, and to allow the effluents to pass directly into the river. The cost of their proceedings is already such as to condemn a method which has been definitely pronounced to be insufficient; and London is not even treated with the courtesy of being told the reasons which have led to the abandonment of the course which every reasonable person would expect them to follow after the Commission had presented its report. It is perhaps too much to expect that they will listen to further advice until the insufficiency of their own method has been brought home to them and to the public.

Probably that portion of Dr. HILL'S address which is most likely to bear fruit, and especially in those towns which

have no need to use ashes for the deodorisation of excremental matter, is his plea for the destructor furnace, which has in some places already been found to be a valuable means for the disposal of house refuse. The necessity for early removal of the contents of the dustbin before decomposition can take place, and its complete destruction by fire at such times of the year when there is no demand for its utilisation in other directions, is becoming more and more obvious, and the ease with which this is effected in Birmingham teaches a lesson which other large towns might with advantage learn. The destruction of this matter does not imply its waste; the mortar and cement which are produced by its exposure to heat might well replace that upon which builders are now too prone to rely.

The teachings of Dr. HILL'S address are very simple. There are now ample means for removing entirely from all large communities matter, both animal and vegetable, which formerly was a potent cause of ill-health and of mortality. The improved appliances which year after year have been made available now give opportunities for this purpose which never before existed; and it only remains for those who have the administration of public affairs to learn that they will in the end save both life and money by adopting that system which long experience has shown to be the best.

THE action of the Council of the Royal College of Surgeons of England in removing Mr. EDWIN W. ALABONE from the list of its members will be approved unanimously by the profession, all the more so that it has not been taken in haste. The resolution to this effect was passed on Aug. 5th. The laws of the College require confirmation of such resolutions at the meeting subsequent to that at which they are passed. The incidence of the holidays has given the Council additional time for consideration, and after an interval of more than two months the motion has been confirmed. The action of the College was indeed very kind and deliberate. If we mistake not, the offender has been most tenderly treated. He has had remonstrance after remonstrance, but without effect; and nothing remained for the College but to sever a connexion by which it was dishonoured and degraded. It is not our intention to say anything that can add to the severity of this punishment. The College is not easily moved to the exercise of its judicial and punitive functions. The profession generally think it too apathetic and insensible to its great responsibilities in connexion with the misconduct of its Fellows and Members under Subsections 1 and 2 of Section 17 of its Bye-laws. The latter of these says that—

"No Fellow or Member of the College shall advertise or publish any matter or thing prejudicial to the interest or derogatory to the honour of the College or disgraceful to the profession of surgery; and any Fellow or Member who may in any manner offend herein shall be liable to removal, by resolution of the Council, from being a Fellow or a Member of the College."

Many a time and oft it has happened that Members of the College have violated this and the previous section without any proper effect on the mind of the Council or exciting its action. Generally, indeed, the misconduct has become a scandal, and has begun to strike even the public before the College can be persuaded to move. The present is a case in point. Mr. ALABONE'S advertisements in the papers—especially, we are sorry to say, in certain denominational papers—excited the notice and the remark of outsiders. And his membership of the College gave a certain authority to his advertisements, and this in turn involved the College itself in discredit. For long this went on without any effective attempt to stop it. The College has now cleared itself of complicity, and Mr. ALABONE will stand alone and on his own merits. He is still, indeed, on the Register, but as the diploma in virtue of which he is registered has been virtually withdrawn, his registration will probably cease.

Let no one suppose that a Medical College acts in this way merely in defence of its own honour and interests. It does so in the public interest. Any persons may advertise as they please as private individuals, but as members of a scientific and professional body they must be consistent with medical science and with the modesty proper to those who know its limits. It is painful to us to record the rebuke and deposition involved in this act of the College. But the act nevertheless has our highest approval, and we commend it to the consideration of other bodies.

There are more subtle forms of advertisement which are scarcely less culpable than those which we are denouncing, and which deceive persons of education and position of whom better things might be expected. Perhaps these are sufficiently met by more subtle indications of professional condemnation and contempt. But it is a question whether they too should not receive more consideration from the bodies whose degrees and diplomas give importance to the culprits

Annotations.

"Ne quid nimis."

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE Report from the Council, comprising a record of their transanctions during the collegiate year from July 1885 to July 1886, to be presented to the Fellows and Members of the College at a meeting which is to be held at the College on Thursday, Nov. 4th, at 3 P.M., is an interesting and important document. Though the questions which have long been at issue between the Council and the Fellows and Members at large are still open and undecided, we would feign recognise, in a perusal of this Report, a desire on the part of the Council to see these questions amicably settled. As we have from time to time reported the meetings of the Council, and have critically reviewed the work done and the decisions arrived at, we need not enter into much detail on this occasion. It will be remembered that the Council, elected as they are at the present day by the Fellows alone, feel themselves unable to initiate any policy which may even seem to compromise the special privileges of the Fellows. They point out "that no detailed plan formulated by the two bodies mutually interested in the question—that is, the Fellows and Members,—by means of which a share of representation might be assigned to the latter, has yet been presented to the Council." At the same time, the Council promise to give "careful attention to any such jointly authorised plan" approved by a majority of each body. It is known that the Associations of Fellows and of Members are preparing some plan which will allow them to co-operate harmoniously with a view to take up the challenge thus thrown down by the Council. This line of action may be assumed to be a continuation nd a reassertion of the policy previously advocated: that is to say—(1) that, under certain circumstances and with

certain limitations, it will conduce to the welfare of the College if Members are empowered to vote for and be eligible to sit as members of Council; and (2) that no alteration be made in the constitution or relations of the College, or in any bye-laws, without the consent of the Fellows and Members. On the latter question, a perusal of the Report will show that the Council manifest a desire to concede something here also; for while still adhering to their previously expressed opinion "that it is unnecessary, and would as a rule be impracticable, to refer certain questions to the consideration of a general meeting," they will be glad to consult the Fellows and Members when "larger questions" arise. A good omen for the Members, all of whom presumably are in favour of the acquisition of corporate rights, is the absence of any organisation among the Fellows to resist this concession by the Council. Nor has there been any public protest against the two Associations or against the policy they have advocated. Hence it may be assumed that these Associations represent in the main the wishes and aspirations of the "two bodies mutually interested" in the questions in dispute, and it is to be hoped that the "detailed plan" which the Council desire to have laid before them will be shortly forthcoming. We sincerely trust that such is the case, and that the Council will themselves help in bringing about an amicable settlement of the just claims of the Members. The time for bickerings, quibblings, and raising technical objections is past, and it is to be hoped that the Council will now see that those who are working for these changes are neither revolutionists nor iconoclasts.

THE DEATH OF PROFESSOR PANUM.

THE last days of the great Danish physiologist present an interest apart from that which usually hangs around the deathbed of great men in that the disease from which he died is not one usually met with. We are indebted to Professor Trier, who was his medical attendant, for a history of his last disease, an account of which was given to the Medical Society of Copenhagen. Professor Panum was sixty-four years of age, and had lately been suffering from shortness of breath and bronchitis. On May 1st, between seven and eight o'clock in the evening, while returning from paying a visit, he found the shortness of breath worse than usual, and had to stop and support himself by the shop windows, when suddenly he felt a pain in his left side as if something had broken. This pain increased on his arrival home. At ten o'clock, on the visit of Dr. Trier, he was pale, with cool extremities, but no sweating; the pulse was small, frequent, and irregular. The patient was undressed and put to bed, but the pain continued, and spread down the left arm to the fingers, while an attack of vomiting set in. After an injection of morphia, towards midnight the pain decreased, a broken sleep came over the patient, and in the morning he was better, and with difficulty was persuaded to remain in bed. He explained to his son the result of a disturbance of the functions of the vagus and sympathetic, and half an hour afterwards, being alone, a cry was heard, and the professor was discovered cyanotic and senseless, and soon after breathed his last. At the examination of the previous evening no increase of the heart's dulness had been detected, but the heart's action was tumultuous, and accompanied with a double blowing sound. At the necropsy the pericardium was found filled with 250 cubic centimetres of clotted blood, and on taking out the heart blood was seen to ooze from a rent in the ventricle. A further examination disclosed the fact that there were present two rents, one five centimetres and the other a centimetre and a half in length, which ran parallel to the septum. The heart's substance was loaded with fat and quite soft. There was a thrombus in the coronary artery. It would seem that the pathological history is as follows:—The thrombus and consecutive degeneration took place in the last weeks of life, and showed their presence through increased shortness of breath; the actual rupture was felt at the moment when it occurred, but much blood was not at the time extravasated, so that no paralysis of the heart's action took place. This, however, occurred later, and led to the fatal result.

THE NEW ANATOMICAL INSTITUTE IN VIENNA.

ON Oct. 11th the new Anatomical Institute was opened in the presence of the Minister of Public Instruction and other members of the university. Those of our readers who have profited by the teaching of this justly-famed centre of medical learning will be glad to hear that the facilities for the study of anatomy are now brought into the same state of excellence as the other departments of medical knowledge, and that the building for the use of the coming generation is in every way worthy of the renown of the great university. The institute, which is situated in the Wälringer Strasse, about five minutes' walk from the General Hospital, combines all the advantages of modern sanitary construction, in the shape of electric lighting, lifts, and ventilation, with a proper regard to the æsthetic requirements, so that the gloomy half-lighted appearance which is too often associated with the study of anatomy is quite absent. On entering one finds oneself in a small entrance hall, from which a staircase, diverging right and left, leads up to two spacious lecture rooms, capable of seating 300 students, and furnished with electric lights. These, with the library and professors' rooms, form the central block, while the dissecting-rooms, four in number, occupy the two wings. Each dissecting-room is large and light, possesses twelve windows reaching nearly from floor to ceiling, and ten dissecting-tables. The dissecting-tables are oval, made of marble, and mounted on a solid iron pedestal. Around the walls are eight taps for washing hands, &c., and at each end is a lift communicating with the underground rooms where the bodies are prepared and injected. In the passage, before coming to the dissecting-rooms, are the prosector's room and the students' cloak room. The electric light, with a special arrangement to prevent shadows, is in each dissecting-room. On the second storey, above the central block, is a room seventy-two metres long, facing the street, which is to serve as the museum, osteological specimens being placed round the walls, while the centre will be occupied by cases for preserved specimens. In the underground department is contained the machinery for heating and lighting, and the rooms for cleaning and preparing the bodies, as well as the dwelling-rooms for the *employés*.

LARYNGEAL VERTIGO.

IT is plain that the profession, as a whole, has no great objection to the use of etymologically unfit words. "Laryngeal vertigo" is one more specimen. The vertigo is not specially related to the larynx in what Charcot called "laryngeal vertigo." The vertigo in this case is the result of coughing. Giddiness and dizziness, with mental confusion and even loss of consciousness, as the effect of paroxysms of coughing, are symptoms of every-day occurrence; and yet Charcot and others are inclined to perceive in this phenomenon something of an extraordinary nature and worthy of a separate description and name. We cannot subscribe to the opinion that there is any necessity for a new name to designate such old symptoms. In order to understand as far as possible the principles concerned in this laryngeal vertigo, "laryngeal epilepsy" or "complete spasm of the glottis," as it has been called by different authors, we should state the matter thus: Every individual is liable to

be attacked with loss of consciousness in the event of a sufficiently powerful exciting cause, but the liability to this "epilepsy," if we may so call it, using the term in the catholic sense of Hughlings Jackson, varies immensely in different individuals, and in the same individual at different times. A slight fit of coughing in a subject of great nervous susceptibility might lead to a vertigo, whereas a prolonged attack of coughing of great severity might fail to affect the consciousness of an individual possessed of healthier nerves. The matter is largely one of degree of coughing and degree of nervous susceptibility. It does not necessarily follow that an epileptic person is the more prone to become unconscious with paroxysms of coughing; it is possible that some epileptics may have their nervous centres less liable to "explode" in the face of passive congestion resulting from expiratory efforts.

CARLYLE ON THE MEDICAL CALLING.

HONOURABLY known as a metaphysician and as an able and effective participant in the protoplasmic controversy, Dr. Hutchison Stirling has always kept touch with pure literature, his latest contribution to which ("Thomas Carlyle's Counsels to a Young Literary Aspirant—a hitherto unpublished Letter of 1842,—and what came of them; with a Brief Estimate of the Man") is of interest to all professions, our own in particular. At the commencement of life Dr. Stirling was divided between the competing claims of literature and medicine, and in his dilemma he consulted the author of "Sartor Resartus" as to how far certain *tentamina* in prose and verse justified his embarking on the former as a career. Carlyle, with characteristic kindness, read the young man's attempts with care, and wrote to him that their publication could not be profitable financially, while for other reasons they ought not to see the light. Recognising "talent" and "generous warmth" in them, he found the former "in far too loose, crude, and unformed a condition," and the latter fraught with the danger that, "if ill-guided it can run up into miserablest waste and weeds." He counsels him to "learn the indispensable significance of hard, stern, long-continued labour," and of silence. "Be in no haste to speak yourself," he says. "Why be *porous*—incontinent? Nothing can ferment itself to clearness in a *colander*." Avoid literature, he continues, which, as a trade, is the "frightfullest, fatallest, and too generally despicablest of all trades now followed under the sun." On the other hand, "What profession is there equal in true nobleness to medicine? He that can abolish pain, relieve his fellow-mortal from sickness, he is indisputably usefullest of all men. Him savage and civilised will honour. He is in the right, be in the wrong who may. As a Lord Chancellor, under one's horse-hair wig, there might be misgivings; still more, perhaps, as a Lord Primate, under one's cauliflower! but if I could heal diseases I should say to all men and angels without fear, 'En! ecce!'" Further, says Carlyle, "if literature do unfold itself under shelter of such a profession, let literature be welcome; it will be safe, beneficial, and have a chance to be true under the circumstances. How many physicians have turned out to be true speakers or even singers? A man *can* first speak when he has got to *know* something." All this, down even to what Mr. Morley calls the "dialect," is to students of Carlyle delightfully characteristic—still more welcome as presenting the sage of Chelsea in a light very different from that in which many people have read him in Froude's publications. Dr. Hutchison Stirling's comments on the moral and intellectual worth of the man are superior to anything yet given on that *verata questio*, and make us feel with Tyndall that "a bucket or so of water whipped up into cloud can obscure the noblest mountain top. But let the sun come out, and lo! the cloud has vanished, and the mountain stands forth all the clearer from its temporary eclipse." It is only poetical justice that the best vindication of Carlyle should have come from the profession to which he paid such manly homage.

A CASE OF POISONING BY IODIDE OF POTASSIUM.

IN a recent number of the *Berliner Klin. Wochenschrift* is an account of a case recorded by Dr. Wolf of Goritz of poisoning by the medicinal administration of iodide of potassium, which is interesting as being a most remarkable instance of that individual peculiarity which we call idiosyncrasy. In this particular case the amount of the drug taken was no more than four tablespoonfuls of a 3 per cent. solution in about thirty-six hours, and the purity of the drug was shown by chemical analysis; but so great was the susceptibility of the individual that after about eight days a fatal issue set in, which there is every reason to attribute to the use of the medicament. The patient was suffering at the time from subacute kidney disease of about three months' standing and cardiac hypertrophy, which facts we must bear in mind in estimating the idiosyncrasy. After the administration of four tablespoonfuls of the above-named solution the face became swollen and covered with pustules, papules, and bullæ, and twenty-four hours after the mucous membrane of the mouth, pharynx, and alimentary canal became attacked in a similar manner. On the cessation of the drug no amelioration ensued, and in eight days the patient sank into a state of collapse and died. No necropsy was made. This is the second case of the kind recorded, Morrow having published one in which the administration of the drug to a person suffering from renal and cardiac disease caused a pemphigiuiform eruption, with similar symptoms and result.

CHURCH-BELL RINGING AND THE SICK.

NOTHING is more inexplicable than the tenacity with which even sensible persons hold to the traditions of any system with which they have been associated by education and habit. A very striking example of this is the ringing of church bells, when those places of public worship stand in the very midst of populous districts, and when those who frequent them are perfectly well aware of the hours of service, and are not in the least degree dependent on the sound of the bells for the opportunity of attendance. In the old days, when parishioners lived a considerable distance from their church, when there were few clocks in private houses, and when the times of service were uncertain, there were valid reasons why bells should be rung to call together the worshippers, but not one of these reasons at present exists, and the ringing of church bells in cities and towns is a needless and vexatious ceremony. To the sound in health it may be an annoyance; while to the sick it is a very grave infliction, causing in many instances serious injury, and, we cannot hesitate to say in not a few cases actually aggravating disease and shortening life. The practice should undoubtedly be abandoned, or, if prejudice be too strong for voluntary action, it ought to be interdicted. It is intolerable that, for the sake of a mere sentiment which has no shadow of solemnity about it, which has nothing whatever to do with religion or belief, and which (outside a utilitarian purpose, which has no place in these days) is simply a superstition of the most stupid kind, annoyance and injury should be perpetrated. A case of flagrant violation of the ordinary rules of courtesy that has just occurred at Liverpool, placing the authorities of one church in a light wholly at variance with the spirit of common humanity, has raised this question in a manner which we trust will give it a practical shape. We would be the very

last to offend the consciences of those who are striving to uphold the religion of the country, and we would not pen one word to wound the feelings of any sincere worshipper; but this matter of church-bell ringing has not the most remote connexion with religion or worship, and we protest against a practice which is an offence, and too frequently entails consequences altogether too terribly disastrous to be contemplated without indignation. Medical practitioners will do well to refuse certificates of the cause of death in cases in which they have reason to believe that the fatal issue has been hastened by the disturbance caused by this practice, and leave it to coroners' juries to give expression to the feeling which the grievance very justly creates.

ANNUAL MEETING OF THE BELGIAN MEDICAL FEDERATION.

THE Belgian Medical Federation has recently held its annual gathering at Brussels. Several burning questions were discussed, especially the change which has been made by the Government in the arrangements for the medical attendance of railway *employés*, according to which dispensaries are established which are attended by the medical officers in rotation, instead of the old system by which the men were allowed to choose their own medical attendant, he being paid according to the amount of attendance. The change has met with great disapprobation from all the Belgian medical societies, with the single exception of the Verviers Society. No vote of protest, as was suggested, was, however, taken, it being arranged that the committee should prepare a report, and that an extraordinary meeting should be convoked before the end of the year for the discussion of the matter. An animated discussion likewise took place on the subject of the sale of pharmaceutical preparations. A motion was also brought forward by Dr. Poirier of Ghent, "That it is desirable that instruction in forensic medicine in the universities should not be theoretical, but practical, and that a higher degree of importance should be attached to this branch of the art of healing in examinations; also that a special and thorough examination, comprising *viva voce*, written, and practical tests, should be instituted, which would confer the title of 'Medical Jurist': that the courts of law should as far as possible be compelled to have recourse to practitioners possessing this qualification, and that a superior council should be formed for the purpose of verifying the various reports addressed to the courts and judging of the capacity of the 'Medical Jurists.'" A long discussion ensued, but it was ultimately adjourned.

FEVER IN GENERAL HOSPITALS.

WE are glad to find that an effort will be made to arrange that hereafter fever cases shall be dealt with by the local authorities instead of being received into the Sussex County Hospital. Where medical schools are attached to hospitals it may be regarded as desirable to receive with due precautions cases of the infectious fevers for the purposes of instruction, but this cannot affect the question in the majority of provincial hospitals, and the first thing to aim at in such institutions is to secure that the patients who are admitted from non-infectious complaints should not run the risk of contracting infection. In the case both of Brighton and Hove, the sanitary authorities have provided hospital accommodation. It is true that at Brighton some of the buildings, erected during a small-pox emergency, are the reverse of attractive, but still some very useful ward accommodation is available, which should lead to the removal of fever cases from the interior of the borough. At Hove an excellent beginning of hospital provision has been made, and the Corporation had the advantage of building it maturely at a time when their district was free from infection. But it is rarely or never used, and this, in all probability, because fever cases are received into the county hospital. Efficient isolation is the thing to be aimed at in the case of the infectious fevers, and this can be better secured in the special hospitals provided by the sanitary authorities than in a general hospital.

THE ATMOSPHERE OF THE UNDERGROUND RAILWAY.

OUR readers will remember what happened years ago when attention was directed to the dangerously impure state of the atmosphere in the tunnels of the Underground Railway. The condition of matters has been considerably improved since then, but it is still far from being satisfactory. The complaints of travellers who suffer in various ways from the highly carbonised condition of the air are very numerous, and in some instances the effects produced have been serious. Surely the time must come when steps will be taken to effect a thorough reform. We have more than once urged that a proper trial should be made of Dr. Neale's "Chemical Lung." It is beyond question a very valuable agent for the purification of air, and we cannot doubt that if the trains were provided with this apparatus, there would be a great diminution of the evil to which we refer. Dr. Neale has, we understand, expressed his willingness to superintend experiments with a view to demonstrate the efficacy of his invention. We counsel the companies to embrace the opportunity before matters reach a pass which will revive the very damaging controversy of years ago, when a contemporary raised a storm which, while happily it blew away the worst of the foul gases, was found very difficult to quiet down.

THE CONSUMPTION OF ALCOHOL IN BELGIUM AND OTHER COUNTRIES.

ACCORDING to M. E. Laveleye, the consumption of ardent spirits in Belgium has nearly doubled in fourteen years, and is now surpassed only by that of Denmark and Russia. Everything is done to encourage it, as if drinking alcohol was a good thing, and one needing to be fostered by the State. The duty is only about 50 francs per litre, while even in France it is 200, and in England nearly 500. There is a place for the sale of drink to every forty-four inhabitants, or one to every ten families. What demon can be in possession of governments that leads them so to foster misery, crime, and poverty—to say nothing of disease. Such a licensed use of alcohol paralyses and mocks all legislation for the improvement of the people, all social efforts, and all progress in medical science. We are in neither the humour nor the position to boast over other countries in this matter. *The Times* of Wednesday records three brutal attacks on wives in one hour, in one town, Birmingham, by their husbands—two of these, at least, under drink.

"LONG RUNS" ON THE STAGE, AND MADNESS.

WE cannot understand how it has come to be thought that the fact of an actor or actress repeating the same part night after night for a lengthened period can be productive of *madness*. No one doubts that the repetition must be wearisome, and if there were no counterbalancing advantages it might be so irritating as to be mentally injurious; but players, like the rest of the world, are at heart matter-of-fact people, and, as Mr. W. S. Gilbert points out, the fact of a long engagement has the not inconsiderable merit of relieving anxiety. Moreover, the brain is spared the toil of frequent "study" for new parts. The day

is left free; and if there be an irritating sameness about the evening's work, it cannot be a very terrible infliction, for even the most elaborate impersonations must come to be almost automatically performed after they have been so repeated as to lose their novelty. The public suffer for these "long runs" because there is "nothing new" to awaken interest; but if the actors suffer, they have their compensation, and we venture to think that, mentally, personally, and relatively, it is adequate.

THE MENTAL STATE OF THE KING OF BAVARIA.

WHY do the physicians reporting on the mental state of the Kings of Bavaria so persistently use the term paranoia or paranœa, which the newspapers print "paranola," as though it had any precise meaning? If it be intended simply to say that the sovereign is of unsound mind, this can be said in a manner less pedantic. As it is, the use of a term which looks as if it were intended to designate a particular form of mental disease, while it conveys no precise idea, does not produce a very satisfactory impression, or inspire confidence. It was irritating to read the reports of the state of the late King; but death put an end to that mystery. It is provoking to find the same unaccountable ambiguity about the official statements with reference to the present King. The physicians of Bavaria should at least make their bulletins intelligible to their brethren in other parts of the world. Of course nothing can compel publicity, but if there are to be reports, evidently issued for publication, they should not be rendered incomprehensible by the use of generic terms from which are deduced specific significations and indications.

FOOD-SUPPLIES FOR THE UNITED KINGDOM.

THE paper read on Saturday last by Mr. Daniel Tallerman before the Working Men's Association, in the Conference Hall of the Colonial and Indian Exhibition, was a very comprehensive and able exposition of the food-supplies of the United Kingdom. The most important point raised by Mr. Tallerman was that which related to the capacities of the United Kingdom to supply its inhabitants with food. Hitherto we have been led to believe that it is absolutely necessary for us to go to foreign countries for a certain amount of food. We have, it is said, over-populated our areas of production. Mr. Tallerman tells us this is not the fact. He affirms that the United Kingdom, aided by her own possessions, can, by proper management, supply all our wants, not in a niggardly form, but bounteously—we had almost said luxuriously. He points to the wonderful capacity of India for the production of wheat; and, bringing us nearer home, he cites what to many will be a novel fact — namely, that Ireland supplies to England more live stock for food than all foreign resources put together. Yet such is the bad management in collection of stock at the farms, in transference to the markets for sale, in transference from the markets to the seaports, from the seaports to England, and from the English coasts to the centres to where the flesh is wanted, that a loss which is scarcely to be calculated is entailed on every carcase, from the sole fact of the exhaustion to which the wretched animal is subjected in its journey from its pasture-land to the shambles. This is only one topic treated upon by the reader of the thoughtful paper. The whole subject is one in which the members of the profession of medicine are bound to be deeply interested. We, of all men, know that if the body is not duly fed, it is a restless, unhappy, diseased, and dangerous body; and those of our fraternity who have time and ability for the work could not be better employed than in accumulating all that requires to be taught respecting food, and conveying the desired information in simple but plain language to all classes of the people. One of our fraternity has, it is well known, laboured earnestly on this matter; he has shown in a bold and outspoken manner how short our supplies often are in the great metropolis, and has indicated that in the culpable neglect which besets these periods of hovering starvation revolution stands out in alarming attitude. But of what avail is it for one man to speak, however boldly, however truthfully? It is a duty for all who can to follow in the same course to rouse the sleeping multitudes from an inertia which is as foolish as it is fatal.

THE CHURCH CONGRESS AND BURIAL REFORM.

THE subject of burial reform was discussed at considerable length in a paper by Mr. F. W. Lowndes, M.R.C.S., &c., which was read at the recent Church Congress. The author did not confine himself to a bare condemnation of the existing modes of interment, or to a general approval of the "earth-to-earth" principle. While advocating the latter as being at once a sanitary axiom and an almost statutory article of religious observance, he showed how it might be made to effect in a practical and inexpensive manner all the results which have been claimed for cremation. In order to attain this end, however, imperishable coffins of whatever kind, and all in burial that is akin to them, must be discarded. Shells made of compressed pulp, which forms the best known substitute for wood, were advised in preference. A suggestion that family vaults should be converted into burial plots is also well worthy of notice. As the author truly observed, a limited space might then, but only then, safely become the last resting-place of generations. We have seen it objected by supporters of other methods that the reformed system is unsuitable for cases of infectious disease. This objection, however, is not difficult to meet, for disinfectants are always available, and, if necessary, a further precaution may be provided by the use of a bier as a means of transfer between the place of death or the hearse and the grave. The opinions which we hold on this subject are not new to our readers. They were warmly espoused by the late much regretted Editor of this journal, and it is a proof of his fidelity to their principle that, after death, his remains were, in conformity with his own expressed wish, consigned to the earth in a perishable coffin.

"SWEATERS'" DENS AT DUNDEE.

SCARCELY a month elapses without, in one form or another, our being compelled to enter a protest against the dangers attendant on the tailoring trade. The "sweating" dens of the East-end of London have been denounced over and over again because they are overcrowded and insanitary, the clothes made therein are at times contaminated, and women, children, and men have to work more hours than is in keeping with the laws of health. But these grievances are not confined to London. The "sweating" system prevails in many provincial towns, and though (the population being smaller) there are not so many cases, the individual instances are often quite as injurious. In Dundee, for instance, a tailor himself has recently made an energetic complaint against the condition of his trade. Writing to the *Dundee Advertiser*, he suggests measures similar to those we have often brought forward in these columns. The "sweater's" den being frequently a private house, it escapes sanitary control. If fever breaks out, the tailoring continues as usual, for the "sweater" and his men cannot afford to cease work. Yet this correspondent urges that many families have, to his personal knowledge, suffered from infectious fevers very shortly

after the receipt of new clothes. Attention might be advantageously employed in tracing the sources which supply clothes to the first victims of any new outbreak. The tailor who writes to the Dundee paper concludes, as we have so often urged, that all tailoring work should, without exception, be done in workshops properly supervised and especially built for the purpose. If infection breaks out in the family of a person working in such a shop he at once ceases work, and apparently the Dundee sanitary authorities would give him 15*s.* a week until all danger of infection was over. This is the proper way to deal with the matter, but we should imagine that in many instances the compensation, to be at all reasonable and fair, must amount to something more than 15*s.* a week. A worker should not be impoverished just at the moment when he has sickness in his home and sacrifices his means of livelihood in order to protect the public from a serious danger.

THE LATE MR. SAMPSON GAMGEE.

AN excellent bust of the late Mr. Gamgee has been executed by Mr. Clarke Staunton of Edinburgh, and it has been thought that some of the late distinguished surgeon's colleagues and professional friends might wish to secure the work of art for presentation to the authorities of the Queen's Hospital, or of the Medical Institute, as a permanent memorial of one who had rendered eminent services to each of these institutions. Funds of course will be required for this purpose, and these will doubtless be forthcoming in ample measure, not alone from professional sources, but from numerous other admirers of Mr. Gamgee's philanthropic and public spirit, as exhibited, amongst other things, in the inauguration of the Hospital Saturday movement, which by his energy and enterprise has become so important an auxiliary to the finances of hospital charities in Birmingham. We understand that a committee to receive subscriptions is in process of formation.

BRITISH GUIANA.

AN Ordinance has been recently enacted by his Excellency the Governor, Sir Henry Turner Irving, with the advice and consent of the Court of Policy, to establish a Government Medical Service and to enforce the registration of practitioners in medicine or surgery. The main provisions of this measure are said to give satisfaction to the profession. It creates a Government Medical Service, consisting of a surgeon-general, the medical inspector to be appointed under the Immigration Ordinance, 1873, and such medical officers as may be necessary. The duties of these officers are determined by the Ordinance and their salaries by the Combined Court. That of the surgeon-general is not to exceed £1200. That of medical officers is from £300 to £500 or more. The Ordinance gives power to the Governor and Court of Policy to create medical districts and to assign a medical district to any medical officer. The duties of the district medical officer are defined in Clause 21. He is to act as medical officer to the plantations on which there are immigrants and as medical attendant to the hospitals certified under the Immigration Ordinances. One section of the Ordinance gives power to the Governor and Court of Policy to make regulations "securing the rights of the public"—i.e., for determining the conditions under which any person may obtain the professional services of a Government medical officer, fixing the scale of fees to be charged by such officers in private practice, and determining when such an officer shall give his services without charge. These are large powers and will require to be used carefully. A Medical Board is created by the Ordinance to investigate questions relating to public health and to grant certificates to chemists, dispensers, midwives, &c. Only such persons are enabled to practise as are registered under the Acts of the Imperial Parliament, or such as at the passing of this Ordinance have been duly licensed in the colony to practise medicine and surgery, or medicine or surgery. Only registered persons will be able to receive fees or give valid certificates.

LANDRY'S PARALYSIS OR HYDROPHOBIA?

ON September 4th a laboratory attendant at the Brown Institution was bitten by a rabid cat. The wounds were treated at St. Thomas's Hospital, and subsequently he went to Paris to consult, and be inoculated by, M. Pasteur. On the 10th inst., whilst returning from Paris, the man got wet through, and remained thoroughly chilled for many hours. On his arrival in London he complained of general pains, and on the 13th had violent symptoms of colic, with pain over the cæcum, &c. On the 16th, feeling fairly well, he foolishly went out, and on the 17th he was seen by a practitioner residing in Lambeth, who diagnosed lumbago. On the following day he was visited by Mr. Victor Horsley, and he then complained of inability to move the legs (imperfect), breathlessness, and pain in head and back. Temperature, pulse, and urine were normal, and the breathing rather suspirious. A difficulty of swallowing existed, but there was no dread of fluid then or up to the time of his death. On the 19th, hearing that he was much worse, Mr. Horsley saw him again, and found that he exhibited all the signs of ascending paralysis. He was at once conveyed to St. Thomas's Hospital, and on his admission to that institution at midday complete paralysis of the legs and great loss of power in the arms were discovered. His respiration was laboured and his swallowing difficult. On the same evening he became comatose, and died at 9 A.M. on the following morning. The patient never had a symptom of hydrophobia, as it occurs in man, on which a tentative diagnosis even could be made. The post-mortem examination revealed the fact that death arose from asphyxia, the only noteworthy sign being congestion of the upper half of the spinal cord and marked congestion and œdema of the lungs. Mr. Victor Horsley has, we understand, inoculated four rabbits from the spinal cord, and in conjunction with Dr. Bristowe, under whose care the deceased was at St. Thomas's Hospital, will in due course report the case in detail. In the meantime judgment as to the nature of the illness must be reserved.

THE COMMON LODGING-HOUSES OF NEWCASTLE.

ACCORDING to lengthy details published in the *Staffordshire Sentinel*, the condition of the registered common lodging-houses at Newcastle is very inferior to that which exists in London. Such dwellings may swarm with vermin and be occasionally disfigured with much superficial dirt, but from a sanitary point of view they are altogether preferable to a very large number of the metropolitan houses of a much higher class. The common lodging-houses of Newcastle are represented as so unfit for habitation that six out of twenty-five have been condemned through the action of Dr. Barry, the medical officer of health. For those that remain we should suggest the application of the rules that are in force in London. The correspondent of the *Staffordshire Sentinel* complains of want of ventilation and bad odours, but the rule in London is that the bedroom windows must be kept open from nine in the morning till nine in the evening. Again, we find the description of a room licensed to hold six people, and yet measuring only 1040 cubic feet. There must be some error here. It is customary to insist on 300 or 350 cubic feet per person, and certainly not less than 250 feet could possibly be sanctioned. In one house, registered to hold fourteen lodgers, there was no through ventilation, and all the windows were closed and

immovable, with one exception, and the frame of this window was so loose that it threatened to fall into the street. At another dwelling, the space allotted to six lodgers was only 970 cubic feet, while in several houses it was found that late in the afternoon the slops which had accumulated during the previous night had not yet been cleared away from the dormitories. Evidently the Act of 1851 remained a dead letter. We are glad to hear that these hovels are condemned. The fact that they have been allowed to remain in such a condition for so long a time is not creditable, and may naturally awaken doubts as to the state of the other common lodging-houses. We may therefore venture to suggest that care be taken to rigorously enforce the law and the bye-laws, which in this respect are stringent enough for all practical purposes.

THE CAUSE OF CIRCULAR GASTRIC ULCER.

DR. SILBERMANN of Breslau has lately made some experiments on dogs for the purpose of showing that the kind of anæmia characterised by deficiency of hæmoglobin in the red corpuscles of the blood is peculiarly favourable to the production and maintenance of circular ulcers of the stomach. Hæmoglobinæmia was produced by injection of various substances, and then either chromate of lead was introduced into a small gastric artery, or a ligature was applied to it, or the internal surface of the stomach was abraded by means of an œsophageal sound carrying a guarded point. All these animals were found to have contracted gastric ulcers, and it appeared to make no difference whether the hæmoglobinæmia was produced before or after the stomach was injured. With the microscope it was found that a number of the red corpuscles were of a very pale colour, and that the blood was less alkaline than normal, which is explained by the experiments of Preyer, A. Schmidt, and Rollet, who have shown that hæmoglobin is a weak acid. Dr. Silbermann considers that in the anæmia of hæmoglobinæmia all the conditions are present which are required by various theories for the production of gastric ulcer—namely, arterial anæmia (Klebs), venous hyperæmia of the gastric mucosa (Key), venous stasis in the hepatic vessels (Gunsberg), circumscribed hæmorrhages (Virchow), and, lastly, diminished alkalinity of the blood (Leube).

REFUSE DISPOSAL.

THE more active local sanitary authorities in London are devoting their attention to the study of the best method of disposal of refuse. Whitechapel, we understand, has determined to depend upon cremation. Newington depends upon another method, and last week their process was examined by a deputation from the Kensington vestry, which included the medical officer of health and the surveyor. The Newington process has as its object the utilisation to their fullest extent of all house dust and road sweepings: the ashes are screened, and the "breeze" subsequently used by brickmakers and builders; while the vegetable refuse and road sweepings are converted into a manure, known to Kentish farmers as Newington mixture. Cremation here is limited to the destruction of other matter for which no use can be found. This is essentially the usual practice in the London dust-yard, and no one can have witnessed the sight which these yards present without having feelings of sympathy aroused for the unfortunate people who are compelled by the necessity of obtaining a livelihood to engage in this occupation. Men and women stand with sieves in their hands, into which are thrown quantities of the outputs of dustbins; the fine dust rapidly passes through the sieve, forming a heap which eventually reaches the waists of the workers, while the larger matter which remains in the sieve is sorted and distributed on other heaps. It is said that the cost of removal is lessened to an important extent by the money paid for the manure and breeze; the sum, should, indeed, be large to compensate for the degradation of the human beings who are compelled to follow such an occupation. It is expected that the Kensington vestry will issue a report upon the whole question of dusting and slopping. It will be interesting to note the view they take of these proceedings.

M. PASTEUR.

THE statistics brought forward by Dr. de Chautemps at the Sorbonne last week were said to show that M. Pasteur had saved the lives of at least 145 Frenchmen. Of 1500 patients subjected to the prophylactic treatment only ten had died, and two of these deaths could be accounted for without supposing the treatment to have been inefficacious. Taking merely the cases that had been under treatment before August 1st, in order to allow of the lapse of sufficient time to ascertain the result of the inoculation, it was shown that the number of cases was 1276. At least 80 per cent. of these cases received bites from undoubtedly rabid animals; so that 973 individuals were bitten. It is computed that 155 of this number would have died if they had been left to themselves; and yet there had been but ten deaths. Hence the claim of Dr. de Chautemps that M. Pasteur had saved the lives of 145 of his countrymen.

CHOLERA INTELLIGENCE.

CHOLERA seems to be showing some renewed activity in Pesth, and according to the several reports received, eighty-four fatal attacks occurred there during the first four days of the present week. One death has taken place in Vienna, but it cannot in any way be attributed to the capital, the case being that of Dr. Emmanuel Schmidt, a prominent physician in the service of the State railway, who died a few hours after returning from Pesth. Considerable precautions have been taken in Vienna, and all householders and lodgers are required under penalty to report immediately any case of suspicion to the public authorities. In Trieste occasional attacks and deaths still occur from day to day. As we have before pointed out, the most serious feature of the present cholera prevalence lies in its bearing upon the prospects for the coming year. And the persistent continuance of the disease in the heart of the Austro-Hungarian empire at this season of the year gives but little hope that the epidemic will close with 1886.

THE FULHAM TRAGEDY.

THE inquest on the bodies of the three children found drowned in the Thames at Broomhouse Dock on Saturday and Sunday has brought to light evidence of an unusually mysterious and horrible character. It is supposed—although there is some doubt about the matter—that the mother, Frances Leader, has committed suicide, after having drowned her three boys. Repulsive as this crime must appear to the community, it is yet one of much interest from a psychological point of view. As yet no definite proofs of the insanity of this unfortunate woman have been brought forward. But it may be reasonably supposed, when we hear of a history of great anxiety, of the birth of a child a month previous to the commission of the act, of intense jealousy of other women, and evidence adduced of alcoholic excess, that the mind of the mother must have been at the time in question at least temporarily unhinged. The absence, too, of any ill-feeling towards the children, the deliberate manner in which the act was carried out, and the exaggerated state of wrath against the husband, are all points which coincide with the

history of most other cases of impulsive insanity. Still, as we have said, there are no direct proofs of mental aberration to account for this supposed quadruple murder and probable suicide. Time alone can clear up this mystery. Meanwhile, far be it from us to speculate upon the probable verdict which an intelligent jury will be called upon to give should Mrs. Leader be found hereafter to have survived her unfortunate victims.

THE DRAINAGE AND SEWERAGE OF THE CITY OF HOBART.

A VERY complete report has been submitted to the Central Board of Health of Tasmania, by Mr. A. Mault, on the present state of the city of Hobart as to its sewerage and on the improvements needed. In so far as a proper system of sewerage is concerned, Hobart has none; and the description of the town as to cesspools, pit-privies, and surface disposal of liquid refuse, &c., shows how urgently a proper system is needed. The subject is fully discussed in the report in its different aspects. The various dry-closet systems and the pail-closets are discarded, and this mainly on the ground that English experience has shown that such systems do not materially diminish the difficulty of dealing with slop-water and liquid refuse generally. Hence a complete system of underground sewers is advocated, and the extension of the watercloset system with trough-closets for the poorer classes is advocated. As far as practicable, it is proposed to keep the rain-water and the sewage apart; this action being the more necessary because of the tropical rains which are experienced. No attempt is proposed to deal with the sewage at the outfall, whether by irrigation or by chemical treatment, it being felt that the sewage can flow into the estuary of the Derwent, and this without risk of injury. How far this latter view is correct we will not pretend to say; but we hope that Hobart will succeed in its proposed sewerage works better than many English towns have done, which decided, in the first instance, not to deal efficiently with the sewage before allowing it to reach the river. So far as situation is concerned, Hobart is likened to Liverpool. If the comparison be a correct one, the sewage should, at least, be taken some distance beyond the city before being discharged into the estuary.

DISSEMINATION OF DISEASE.

AT a meeting of the Tavistock Sanitary Authority, held last week, Mr. F. M. Williams, the medical officer of health, adduced the following instances of recklessness in regard to the spread of scarlet fever in the district under his charge: (1) A case of scarlet fever in a house where the business of secondhand clothes dealing was carried on by the mother of the patient, who nursed the child; (2) a scarlet fever patient having a sister, a dressmaker, who went to her work daily; (3) case not reported until the peeling stage had arrived, other children of the same family being allowed to go to school, and the whole family occupying two rooms.

A FATAL BATH.

A CASE of fatal syncope which occurred a few days ago, and was apparently induced by a warm bath, is not without its lesson. The robust may learn something from it, and those to whom this practice is a therapeutic aid have better reason to regard its teaching. The utility of vapour, hot-water, and Turkish baths is admittedly considerable; and it follows naturally that care in the selection of subjects for their use becomes all the more a matter of mere necessity. The diaphoretic effect of such baths entails a certain caution. While it is precisely the fact which renders them so valuable to the chronic rheumatic, the gouty, and the sufferer from renal disease, it must obviously, by depressing vascular tension, forbid their use to all but those whose cardiac tone and action are unimpaired. For a similar reason, the time chosen for bathing should, even in the case of the healthy, be such that the risk of exhaustion beforehand is as far as possible avoided. When hunger or toil has exercised its influence during the greater part of a working day, even the strong heart may be for the time rendered inefficient. The hour may differ, indeed, with different persons, but there should be some guarantee that it is for each the fittest hour in point of bodily vigour. In the case to which we have referred, it is probable that neither of the above conditions was satisfied. The bath was entered in the early evening, and the heart of its unfortunate occupant was found after death to be extensively diseased.

THE PRACTICAL STUDY OF SYPHILITIC DISEASES.

ALTHOUGH the examination-papers in surgery at most of the examining bodies contain occasionally a question on syphilitic or gonorrhœal diseases and their complications, it must be admitted that their practical study is very much neglected. This arises from various causes: one is that the attendance of students on the practice of lock hospitals and lock wards is not compulsory; another is the dearth of both of these latter institutions, which, even in such a city as London, are few and far between. Consequently many students complete their curriculum with no more practical knowledge of how to diagnose and treat venereal diseases than the smattering they may have picked up in the out-patient department, and from the lectures on surgery, which generally include a few on these diseases. The surgeons of the Liverpool Lock Hospital, Messrs. F. W. Lowndes and A. Bernard, being anxious to encourage students to avail themselves of the excellent opportunities afforded in the male wards, where clinical demonstrations are given every Saturday during the winter and summer sessions, have resolved to give an annual prize of two guineas for the best report of cases delivered during the winter session of the Liverpool Students' Debating Society.

THE EARTHQUAKE AND THE CHARLESTON MEDICAL COLLEGE.

THE Dean of this College gives a lamentable account of the injury it has sustained by the earthquake, rendering it unfit for lecturing and other purposes. It has neither mortgageable property or funds. The American papers report very generous subscriptions from the Philadelphia County Medical Society, from Dr. Weir Mitchell, Dr. J. M. Da Costa, and Messrs. Lea Brothers and Co.

SCARLATINA IN LIVERPOOL.

AN increase of scarlatina in Liverpool has to a large extent done away with the difficulty which attached to the use of the Netherfield-road Hospital. And now that the public, medical practitioners, and public officials have of their own accord demanded the use of the hospital, we trust that arrangements will be made for continuously utilising the beds which are there available. Liverpool is badly enough off as regards hospital accommodation for fevers, and it cannot afford to see empty beds awaiting patients who may be sources of infection outside. Even now, according to the report of the proceedings of the Health Committee of the Corporation, there seems to be a feeling against filling the hospital. But there is no worse policy for a sanitary authority than to allow such a disease as scarlet fever to spread merely in order to retain a number of empty beds in readiness for some other fever which may never appear

And, after all, scarlet fever is the most fatal of our infectious fevers, and the one that calls for the most energetic action on the part of sanitary authorities entrusted with the isolation of infection.

THE TRANSACTIONS OF THE COPENHAGEN CONGRESS.

WE have received a copy of the Transactions of the Eighth International Medical Congress (D. Nutt) held in Copenhagen in 1884. Like those of the London meeting these Transactions are contained in four volumes, not so bulky, but full of important matter. The French language is used for the accounts of the general meetings and the discussions there delivered, with the exception of those of Sir W. Gull and Professor Virchow. Besides these addresses, the first volume contains the proceedings of the sections of Anatomy, Physiology, and Pathology; the second, those of Medicine, Surgery, Obstetric Medicine, and Gynæcology; the third, that of Ophthalmology, Diseases of Children, Dermatology, and Neurology; and the fourth, those of Laryngology, Otology, Hygiene, and Military Medicine. We hope to refer more fully to the contents of the volumes on another occasion. Meanwhile we may congratulate the Secretary-General, Professor Lange, upon the completion of his labours, and sympathise with him in the loss of those eminent *confrères* to whose memory he appropriately dedicates the work—viz., Professor Panam, President of the Congress; Dr. Holmer, President-elect of the Section of Surgery; and Dr. Salomon, President of the Section of Military Medicine. We may add that the papers and discussions are printed as in the London volume, with the improvement of the titles of each paper being written in the three official languages—English, French, and German; but without, we regret to say, any index to the volumes, which formed so useful an addition to the Transactions collected by Sir W. Mac Cormac.

LUNG OR LIVER?

THE great difficulty in diagnosis that the physician has to contend with in the region that contains the right lower lobe of the lung and the liver is one of the most patent facts of clinical medicine. And yet hardly a week passes that does not afford some illustration of the difficulty of surmounting even a well-recognised obstacle. M. Guyot has published a case of hydatid cyst of the liver, which he mistook for a pleurisy of the diaphragm associated with pulmonary tuberculosis. It is said that all the physicians who saw the case were of M. Guyot's opinion. The hydatid cyst had suppurated, and the friction sound was the result of spread of the inflammation to the serous surfaces. The rule laid down by many physicians that the liver should be thoroughly explored in the presence of friction sounds in the hepatic region, when there are the ordinary signs of suppuration, cannot be too strongly insisted upon.

A LEGAL VIEW OF SERVICES BY AN UNQUALIFIED ASSISTANT.

A DISPUTE was lately raised in the St. Helens County Court over a charge on account of the late Dr. Griffiths for services rendered by an unqualified assistant. The judge had previously adjourned the case, having doubt as to whether a registered medical practitioner could recover for services rendered by such an agent. The attorney for the plaintiff, however, soon satisfied his Honour. He had, during the adjournment, looked up authorities, and referred his Honour to the case of Turner and Smyth *v.* Reynall, heard before Chief Justice Earle and other judges in 1863, when the Chief Justice said, "How can it matter to the patient whether a registered practitioner is assisted by a partner who is not on the Register, or, as was the case, by an unregistered assistant who was in partnership?" His Honour remarked that that was conclusive in favour of the right of the plaintiff to recover, although Mr. Wilson (his assistant) was unqualified. The attendance was then proved by Mr. Wilson, and his Honour gave judgment for the plaintiff for £4 1*s.* 6*d.* It seems curious that while coroners are condemning attendance by unqualified assistants, judges are sanctioning it as a ground of claim. This anomaly deserves attention.

THE NEW ENTRIES.

THE following is a list of the numbers of new students for the current session at the various medical schools from which returns have been received:—

	Full course.	Occasional students.	Total.
St. Bartholomew's	125	13*	138
St. Thomas's	88	43	131
University College	74	72†	146
Guy's	69	32‡	101
London Hospital	64	44	108
St. Mary's	60	23	83
Charing-cross	52	38	90
Middlesex	42	32	74
King's College	41	26	67
St. George's	20	5	25
Westminster	14	1	15
Owens College	60	50§	110
Newcastle-on-Tyne	36	42	78
Yorkshire College	38	6‖	44
Univ. Coll., Liverpool	28	5	33
London School of Dental Surgery	22	—	22

* Students attending London University classes only are not included in this return, as they are not counted as students of the hospital.
† Including 60 for Preliminary Scientific Examination.
‡ Including 19 candidates for the Preliminary Scientific Examination.
§ Including 26 for Preliminary Scientific Examination.
‖ Including 1 for Preliminary Scientific Examination.

ANÆSTHESIA DURING LITHOTRITY.

DR. VDORIKOVSKI, writing in a Russian surgical journal on the subject of anæsthesia during lithotrity, comes to the conclusion that when the stone is small, and can be removed with about half an hour's manipulation, local cocaine anæsthesia answers very well. In the case of large stones requiring a prolonged sitting for their removal he uses chloroform; and when the bladder contracts so as to make the operation particularly difficult, he combines the two methods—that is, he employs local anæsthesia by cocaine and general anæsthesia by chloroform simultaneously.

OUTBREAK OF DIPHTHERIA IN CAMBERLEY, SURREY.

THERE has been a severe outbreak of diphtheria in the neighbourhood of Camberley, Yorktown, Sandhurst, and Frimley. As far as we can gather, there have been between sixty and seventy cases, ten or eleven of these being fatal. Of the nature of the disease there can be no doubt. Drs. Broadbent and Cayley have been called in consultation to some of the cases. The spread of the disease is generally attributed to milk as a vehicle of infection, but further investigation is needed to decide this question, and in such investigation it will be necessary to take into account as a possible factor the operations now being carried out with the object of cleansing the Blackwater, to which we referred in our issue of September 18th last. The disease prevails amongst the better class of houses in the district inhabited by the civil and military population. Up to the present time, as we learn, no cases of diphtheria have occurred in either of the two military institutions of Sandhurst—viz., the Royal Military Academy or the Staff College, and, of course, every precaution has been taken to guard against the introduction of the disease into those establish-

ments. Cases of diphtheria have of late been cropping up in the neighbourhood all along the valley, and have, as our readers are aware, been the subject of investigation. Isolated cases of scarlet fever have also appeared in the vicinity.

THE BOARDING OUT OF PAUPER CHILDREN.

IT was decided a few days ago by the Holborn Board of Guardians to send out six more children to board. A strong objection was made by Mr. Hopkins on the ground that much expense had been incurred in erecting adequate establishments for the children, and that a committee of inquiry had reported very badly of the plight of one poor little fellow boarded out with a labourer, with eleven children, the last twins, and whose house was poverty-stricken. The chairman said matters had improved since the report, and the decision was carried by 13 to 11 votes. This is an unpleasant aspect of the boarding-out system, but let us hope it is exceptional.

CANCER OF THE STOMACH.

THE supra-clavicular lymphatic glands may be the seat of enlargement when there is a new growth in the lung, pleura, or œsophagus, and also when the stomach is the seat of a malignant tumour. M. Troisier has paid attention to this circumstance, and is of opinion that in some cases the presence of enlarged glands above the clavicle may confirm the diagnosis of cancer of the stomach. The occurrence of such enlargement is well known to English physicians, but we should not have thought the discovery of swollen glands in this region would have helped the diagnosis in a case in which the *locale* of the new growth was a matter of doubt.

FOREIGN PROFESSORIAL APPOINTMENTS.

Besançon.—M. Druhen has been appointed Professor of Midwifery and Gynæcology.

Dorpat.—The three names submitted for the Professorship of Clinical Medicine are Drs. Schultze of Heidelberg, Stintzing of Munich, and Dehio of Dorpat.

Giessen.—Professor Eckhard has been appointed *Geheim Medicinalrath* (medical privy councillor).

Gratz.—Dr. W. Czermak has been appointed Docent in Ophthalmology.

Liège.—Dr. Firquet has been appointed Extraordinary Professor of Pathological Anatomy.

Prague (German University).—Dr. Habermann has been appointed Docent in Otology.

THE members of the School Board of Anstruther, Fifeshire, would seem themselves to need a little instruction, at least in what is demanded of them as a body in whom is vested the discharge of certain important public duties. The medical officer of health having advised the temporary closure of the schools on account of the existence in the district of a rather severe epidemic of scarlet fever and diphtheria, the sapient board have resolved to disregard this proper sanitary precaution, and thus to show to the world their superiority to such trifling considerations as public health and safety.

DR. OVILO, who has gone to Tangiers officially charged with making arrangements for the establishment of a medical school, has been fortunate enough to have succeeded in restoring to health one of the Sultan's ministers, who was considered to be in a very critical condition, and this has produced a most favourable impression on the Tangiers public.

THE lectures in the Hospital and learned Societies of Vienna began this week. The new Professor of Midwifery and Gynæcology, Breisky, gave his inaugural address on the 18th inst. Privat-docent Pawlik will teach Gynæcology in place of Professor Bandl; and Dr. Maydl, lately assistant to Professor Albert, will teach Surgery at the Vienna Poliklinik, in the room of Professor Woelfiers.

WE regret to have to record the death, on the 7th inst. at Newport, Isle of Wight, of Mr. Henry Waterworth, F.R.C.S. Eng., at the age of seventy-eight. Mr. Waterworth was Justice of the Peace for the borough, of which in 1859 he was elected alderman. For many years he held a commission as surgeon in the Isle of Wight militia.

A CASE in Northwich having been reported in which cheese-making was being carried on in a room occupied by a patient suffering from scarlet fever, the Rural Sanitary Authority have passed a bye-law, under the Milk-shops and Dairies Regulation Act, making compulsory the notification of infectious disease.

AN order has been issued in Lower Austria forbidding manufacturers and tradesmen to sell nickel-plated vessels for cooking. It is stated that vinegar and other substances dissolve nickel, and that this in doses of the seventh of a grain produces vomiting, and is generally more poisonous than copper.

IN reply to a request on the part of the Sanitary Assurance Association, Dr. Farquharson, M.P., has consented to bring in again next session the Sanitary Registration of Buildings Bill. In this action Dr. Farquharson will have the co-operation of the members for South Manchester, Central Hackney, and Glasgow.

AT a meeting of the Driffield Rural Sanitary Authority last week, it was stated that scarcely one out of thirty villages in the Union had escaped an attack of measles. The disease seems to have spread by the Sunday schools, which remained open while most of the day schools were closed.

SIR GUYER HUNTER has been elected a member of the London School Board, to represent Westminster, in place of the late Mr. James Ross.

DR. W. H. DICKINSON has been elected Hon. Fellow of Gonville and Caius College, Cambridge.

FIFTEENTH ANNUAL REPORT OF THE LOCAL GOVERNMENT BOARD.

THIS report deals at more or less length with all the multitudinous matters which come within the jurisdiction of the Local Government Board; Poor-law questions taking, as usually, precedence. During the parochial year 1884-85 the mean number of paupers of all classes was smaller, in proportion to the population, than in any previous parochial year for which statistics are available; but the mean number of adult able-bodied paupers bore the same proportion to the estimated population as in the preceding year. The expenditure incurred in this respect represented an average charge of six shillings and threepence per head on the estimated population, and in only five of the past twenty years has this charge been less. The largest increase in expenditure during the year took place in Durham, owing to the maintained depression in the Cleveland and Durham coal and iron trades, and in shipbuilding on the Tyne, the Tees, and the Wear. There is a steady increase in the number of lunatics who are relieved at the cost of the

poor-rates, the number on Jan. 1st, 1885, being 69,700, as compared with 54,571 on the corresponding day in 1875. In the metropolis the adjusted cost of relief has risen from a little over a million and a half in 1875, to nearly two millions and a half in 1885; but owing to the increase in the rateable value there has been no corresponding increase in the rate in the £ required to provide such expenditure. Referring to the action of the Metropolitan Asylums Board during the small-pox epidemic of 1884-85, the report speaks of the manner in which the removal of patients to the hospital-ships at Long Reach has been perfected, and it is stated that of the many thousands of patients conveyed down the river at all seasons of the year, no instance has been discovered in which the journey has appeared to affect the patient prejudicially. So, also, as to the camp established on the Gore Farm Estate, it is said that the treatment of convalescent patients under canvas during the winter presented but few difficulties, although wooden huts afford better protection against storms and are on other grounds to be preferred.

Turning next to the subject of Local Government and Public Health, we find that since the constitution of the Board in 1871 nearly thirty-four millions and a half have been raised by way of loan with the sanction of the Board, twenty-nine millions going to urban districts, two millions and a quarter to rural districts, the same amount to improvements under the Artisans' Dwellings Acts, and nearly a million to joint boards for sewerage and hospital purposes. But, in addition to these amounts, sanitary authorities have since 1873 raised nearly forty-two millions and a quarter by local Acts without any need for sanction by the Board. In 1146 districts medical officers of health have been so appointed as to secure repayment from the parliamentary grant of a moiety of the salaries; and in 1052 districts a similar arrangement holds good as to the inspectors of nuisances; the sums so paid out of the grant amounting in the year ending March 25th, 1885, to £71,422.

Passing over the record of a multitude of matters with which the Board have concern, we come to the subject of defaulting authorities, and we find that, notwithstanding all that has passed, Cheshunt has managed, by its promises and by entering upon proposals which the central authority could not approve of, to keep its district without a proper system of sewerage up to the present time. A new proposal is now under consideration. Other authorities have either submitted proper proposals, or have taken definite action; and on the whole substantial benefit appears to result from such action as the Board are empowered to take under Section 299 of the Public Health Act. The state of the river Lea still remains very unsatisfactory. At first, a loan of £13,360 was sanctioned, and this not being sufficient, it was decided, after local inquiry, to sanction a further expenditure of £2000; but proper progress was still wanting, and recently the Tottenham Local Board, whose sewage outfall works are mainly at fault, decided to ask for a further sum of £7740 for the construction of additional precipitating tanks. A Bill, entitled the Lea River Purification Bill, was deposited last December to deal with the subject.

In dealing with the Sale of Food and Drugs Act, 1875, the report states that the number of analyses in 1885 was 23,230, or about 300 more than in 1884; but this only amounts to one sample analysed for every 1184 persons in England and Wales. In the counties of Berkshire and Montgomery no samples were submitted, and the proportion differs widely in different portions of the kingdom, and even of the metropolis. Of the articles submitted to analysis, 13·2 per cent. were found adulterated; the highest rates being—spirits, 23·1; butter, 18·9; coffee, 16·4; mustard, 15·4; and milk, 14·7. This result is contrasted in the report with that which was obtained by THE LANCET Commission in 1854-56, when considerably more than half the samples analysed were reported against. In 1875 the rate was 19·2, and the average for the five years 1877-81 was 16·2. The returns for 1885 may therefore be viewed with a certain amount of satisfaction. A substantial improvement is also noted as regards milk; but it may well be added that it is still highly unsatisfactory to find that even now more than one-seventh of the samples fail to reach the standards of genuineness usually adopted by analysts, and this the more so because it is known that these standards are low to meet the case of extremely poor but natural milk, which it is so difficult to distinguish from watered milk. As regards butter, it is noteworthy that the sale of "butterine" is steadily on the increase. There is no reason to believe it to be injurious to health, but when sold as butter it is a fraud and an injury to the dairy trade, which will doubtless before long attract some parliamentary attention. Of 447 samples of drugs, 13 per cent. were reported against; nitrous ether being often found to be below the proper strength. An interesting inquiry was made by Dr. Seaton, medical officer of health for Chelsea. During its course 50 prescriptions were sent to various druggists and stores, and in 17 of them there was an error of more than 10 per cent. in the quantity of the chief drug ordered; in 8 cases the error exceeded 20 per cent. In the case of mercury and hyoscyamus pills, the quantity ordered was exceeded by no less than 29 per cent. In this case imperfect mixing was probably the cause of the error, but others were evidently the result of negligence. The subject is one of grave importance, and it is to be hoped that further inquiry into it will be made. Other matters in the report must stand over for further comment.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In twenty-eight of the largest English towns 5617 births and 3287 deaths were registered during the week ending Oct. 16th. The annual death-rate in these towns, which had declined in the preceding five weeks from 22·6 to 19·3, further fell last week to 18·9. During the thirteen weeks of last quarter the death-rate in these towns averaged 20·4 per 1000, and was 0·8 below the mean rate in the corresponding periods of the ten years 1876-85. The lowest rates in these towns last week were 13·9 in Bristol, 14·2 in Birkenhead, 16·0 in London, and 16·6 in Brighton. The rates in the other towns ranged upwards to 25·9 in Hull, 26·1 in Wolverhampton, 27·3 in Blackburn, and 34·5 in Preston. The deaths referred to the principal zymotic diseases in the twenty-eight towns, which had declined in the preceding five weeks from 1202 to 578, further fell last week to 540; they included 271 from diarrhœa, 79 from "fever" (principally enteric), 75 from scarlet fever, 51 to measles, 34 to diphtheria, 30 to whooping-cough, and not one to small-pox. The lowest death-rates from these zymotic diseases were recorded last week in Brighton, Huddersfield, and London; and the highest in Salford, Hull, and Preston. Diarrhœa caused the highest death-rates in Blackburn, Preston, and Hull; "fever" in Norwich, Derby, Leeds, Halifax, Portsmouth, Plymouth, and Preston; scarlet fever in Salford, Liverpool, and Bradford; measles in Wolverhampton; and whooping-cough in Hull. The 34 deaths from diphtheria in the twenty-eight towns included 18 in London, 4 in Liverpool, 3 in Manchester, 2 in Birmingham, and 2 in Huddersfield. Small-pox caused no death in London and its outer ring, or in the twenty-seven large provincial towns. Only 2 cases of small-pox were under treatment on Saturday last in the metropolitan hospitals receiving cases of this disease. The deaths referred to diseases of the respiratory organs in London, which had increased in the preceding five weeks from 110 to 229, declined again last week to 223, and were 66 below the corrected average. The causes of 66, or 2·0 per cent., of the deaths in the twenty-eight towns last week were not certified, either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Leicester, Newcastle-upon-Tyne, Portsmouth, Preston, and in four other smaller towns. The largest proportion of uncertified deaths were registered in Birmingham, Liverpool, and Bolton.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 16·8, 18·3, and 19·8 per 1000 in the preceding three weeks, was 19·5 in the week ending Oct. 16th; this rate exceeded by 0·6 the mean rate during the same week in the twenty-eight English towns. The rates in the Scotch towns last week ranged from 11·1 in Greenock and 15·1 in Edinburgh, to 20·7 in Aberdeen and 23·8 in Glasgow. The 482 deaths in the eight towns last week showed a decline of 7 from the numbers in the previous week, and included 46 which were referred to diarrhœa, 21 to whooping-cough, 12 to scarlet fever, 6 to "fever" (typhus, enteric, or simple), 3 to diphtheria, and not one either to small-pox or measles; in all, 88 deaths resulted from these principal zymotic diseases, against 65 and 82 in the previous two weeks. These 88 deaths were

equal to an annual rate of 3·4 per 1000, which was 0·3 above the mean rate from the same diseases in the twenty-eight English towns. The deaths attributed to diarrhœa, which had declined in the previous five weeks from 57 to 22, rose again last week to 46, of which 16 occurred in Glasgow, 9 in Edinburgh, 7 in Dundee, and 6 in Aberdeen. Diarrhœa mortality in the Scotch towns last week was somewhat higher than that which prevailed in the large English towns. The 21 fatal cases of whooping-cough showed a decline of 4 from the number in the previous week, and included 15 in Glasgow and 3 in Edinburgh. The 12 deaths from scarlet fever also showed a decline; 7 occurred in Glasgow and 3 in Aberdeen. The 6 deaths referred to "fever," corresponded with she number in the previous week, and included 2 in Glasgow and 2 in Edinburgh. Two of the 3 fatal cases of diphtheria occurred in Glasgow. The deaths referred to acute diseases of the respiratory organs in the eight towns, which had been 65, 67, and 93 in the previous three weeks, further rose last week to 98, and exceeded the number in the corresponding week of last year by 5. The causes of 72, or nearly 15 per cent., of the deaths in the eight towns last week were not certified.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been 22·8 and 23·1 per 1000 in the preceding two weeks, declined again to 22·5 in the week ending Oct. 16th. During the thirteen weeks of last quarter the death-rate in the city averaged 22·1; the mean rate during the same period was 18·7 in London and 17·5 in Edinburgh. The 161 deaths in Dublin last week showed a decline of 4 from the number in the previous week, and included 11 which were referred to diarrhœa, 2 to scarlet fever, 2 to "fever" (typhus, enteric, or simple), 1 to whooping-cough, and not one either to small-pox, measles, or diphtheria. Thus the deaths resulting from the principal zymotic diseases, which had declined in the previous four weeks from 39 to 28, further fell last week to 16; they were equal to an annual rate of 2·4 per 1000, the rates from the same diseases last week being 2·0 in London and 2·9 in Edinburgh. The fatal cases of diarrhœa, which had decreased in the previous four weeks from 29 to 17, further declined last week to 11. The deaths referred to scarlet fever and "fever" also showed a decline from the numbers in the previous week. Two inquest cases and 2 deaths from violence were registered; and 46, or more than one-quarter of the deaths, were recorded in public institutions. The deaths both of infants and of elderly persons exceeded the numbers in the previous week. The causes of 22, or more than 14 per cent., of the deaths registered during the week were not certified.

THE SERVICES.

Sir Thomas Crawford, K.C.B., M.D., Director-General, Army Medical Department, has been appointed Honorary Surgeon to the Queen, vice Inspector-General A. Gordon, M.D., C.B., deceased.

WAR OFFICE.—Army Medical Staff: The undermentioned Surgeons to be Surgeons-Major:—Barnard William Wellings; Robert Smith, M.B.; Francis Wollaston Trevor, M.B.; Henry Archibald Fogerty, M.D.; Harvie Scott, M.B.; Robert Henry Gardner, M.B.; James McGann; James Powell; Sidney Herbert Carter, M.B.; William Allan May; George Deane Bourke; Hamilton Geo. Gardner, M.B.; and John Hoysted.

INDIA OFFICE.—The Queen has approved of the following promotion made by the Government in India:—Surgeon-Major Charles Peter Costello, of the Bengal Medical Establishment, to be Brigade Surgeon.

ADMIRALTY.—The following appointments have been made:—Deputy Inspector-General Belgrave Ninnis, to the Jamaica Hospital; Deputy Inspector-General Duncan Hilston, to Chatham Hospital; Staff Surgeon Charles C. Godding, to the *Britannia;* Staff Surgeon Alexander Flood, to the *Scout;* Surgeon J. T. W. S. Kellard, to the *Shannon;* Surgeon J. J. Walsh, to the *Bann;* Surgeon Alfred H. Miller, to the Ascension Hospital; Surgeon John Dawson, to the *Wye;* Surgeon Ludlow T. Colthurst, to the *Royal Adelaide;* Surgeon Edward B. Townshend, to the *Pembroke,* additional; Surgeon Henry B. Beatty, to the *Duke of Wellington,* additional; Surgeon Alexander W. McLeod, to the *Seahorse,* additional; and Surgeon Michael Augustus Lyden to be Surgeon and Agent at Costello Bay and Spidal.

RIFLE VOLUNTEERS.—1st Cumberland: Acting Surgeon T. D. Sanderson resigns his appointment.

Correspondence.

"Audi alteram partem."

DIRECT REPRESENTATION OF THE PROFESSION ON THE GENERAL MEDICAL COUNCIL.

To the Editor of THE LANCET.

SIR,—In your issue of the 16th inst., under the above title, there is a short article containing statements which are not only inaccurate, but very misleading, and consequently likely to be injurious to our Glasgow candidate, Dr. Morton, and to these I desire to reply.

The statement is that an attempt is being made to secure three seats for three officials of the Faculty, and that the attempt ought not to succeed. Another statement is that there are two representative general practitioners in the field—Dr. Morton, of course, not being one of the two, the inference being that he is not a general practitioner, but a something else. In the first place, I have to state, for the information of your readers, not only in Scotland, but in England as well, and especially for the information of the writer of the paragraph, that Dr. Fergus was not a representative of the Medical Faculty in Glasgow. He was not sent to the General Medical Council by the Fellows of the Faculty. To his credit be it said that, unsolicited by him, and unknown at the time to the corporation, he was nominated to the office which he now holds by the Crown. Dr. Fergus represents Her Majesty on the General Medical Council, not the Glasgow Faculty of Physicians and Surgeons. We have pleasure in admitting that the "smallest medical corporation in Scotland" has been highly honoured in having one of its Members or Fellows made a Crown representative. I may add, further, that Dr. Fergus is not now "an official" of the Faculty. He is simply an honoured private member. Our only representative is Dr. M'Vail, who has succeeded the late Dr. Scott Orr.

In the second place, I have to state that the movement to promote Dr. Morton to a seat in the General Medical Council has not arisen in the Faculty or amongst its Fellows. It has had its origin among the general practitioners of the city and suburbs. No one who knows anything of the profession in Glasgow and the west of Scotland will for a moment believe that Dr. Morton is being put forward by the Faculty to represent that corporation. It is not the official Fellows or Members more or less intimately connected with the University who are upon Dr. Morton's committee, giving him their hearty support. The committee now consists of between four and five hundred general practitioners, who desire to do Dr. Morton honour by electing him, as they hope to do, to be their representative in the Council. The Faculty of Physicians and Surgeons also wished to do Dr. Morton honour, and they at their last annual meeting unanimously elected him for a year as their president, and that, too, in spite of the fact that he was a candidate for a seat in the General Medical Council.

I may mention that the committee feel that Dr. Morton, well known in the profession, is one of themselves. We know that he has been all his professional life a general practitioner. It is therefore a mistake to say that there are only two representative general practitioners in the field. It would have been more accurate had it been stated that there were three.

I hope I may be permitted to add here that the committee consider Dr. Morton to be a man of firm and independent mind, who has risen from the ranks by his own unaided ability. While able to think for himself and to express his views with clearness and precision, he has a very practical business turn, and is not given to much speaking. Dr. Morton will, in our opinion, make a good representative, and we wish him success.

I am, Sir, yours truly,

JAS. DUNLOP, M.D.,
Chairman of Committee.

Glasgow, Oct. 18th, 1886.

*** We gladly insert Dr. Dunlop's letter, and are happy to agree with him in all his praise of Dr. Morton. But we are "of the same opinion still." To elect the President of one of the Scotch corporations, and that the least of them, will be to do that which is superfluous and to stultify the demand made by the great body of the profession for representation of the unofficial section of the profession. We are well aware that Dr. Fergus represents the Crown for Scotland in the

Medical Council, and that he does so worthily. But our correspondent will not deny that he was lately President of the Faculty, and that the Faculty knows that it has in him a friend. Neither will he deny that Dr. M'Vail is an able and sufficient representative of the Faculty. Our contention is irresistible, that to put in its new President will be to throw away the seat and to stifle the free representation of Scotland. If such an attempt succeeds, we shall, however, blame not Dr. Morton, but the general practitioners of Scotland, who have two excellent alternatives, and who, for the first time, have a chance of showing what stuff they are made of when out of the shadow of schools and corporations.—ED. L.

To the Editor of THE LANCET.

SIR,—While in England practitioners generally seem to be alive to their interests in the election of their three members of the General Medical Council, we in Scotland (long-headed and sagacious though we get the credit of being) are in considerable danger of being thwarted and denied even the single representative we believed we had secured. Most certainly, if the successful candidate be intimately connected with any of the corporations or teaching bodies, the object of our struggles for direct representation during these past years will not have been attained—our end will for the time have been frustrated. Holding the opinion that the Scottish seat in the Council should be occupied by a general practitioner, Sir Douglas Maclagan has declined to be nominated as a candidate. There is no honour he himself would value which the profession in Scotland would not willingly pay Sir Douglas, but this compliment would have been so inapt and incongruous that I more than ever admire and respect him for the consideration and decision which have prompted him to act as he has done.

But surely, Sir, it would be a much more unsuitable appointment still if the President of the Faculty of Physicians and Surgeons of Glasgow were chosen for this seat. Dr. Morton holds this office, and therefore by his election that corporation would be doubly represented in the Council, and besides, Glasgow would absolutely gain two seats, the University at this time sending one of its own members. Personally, I have no doubt whatever that Dr. Morton would make an excellent representative, but it is absurd to speak of him as a *bonâ-fide* representative of the general practitioner. Questions are coming up which will affect the relative positions of the corporations, the profession, and the public, and it would be puerile to take for granted that on any test question the interests of the corporation would not be preferred by the president to the general interests. When we have it in our power, let us have a man of unprejudiced mind, whose concerns are ours, who from experience knows our difficulties and has the ability to give expression to our wants and wishes. We have such men in Dr. Bruce and Dr. Sinclair, both of whom are ready to undertake the representation on our behalf. For myself, I intend to vote for Dr. Bruce, on the ground that he is the senior, has had greater variety of practice, has longer taken a deep interest in medical politics and education, and is, in all respects, a typical representative of the general medical practitioner. But, in any case, let us not stultify ourselves by the choice of one not of ourselves.

I am, Sir, yours truly,

Oct. 1886. M.D. EDIN. IN GENERAL PRACTICE.

To the Editor of THE LANCET.

SIR,—There are a few very material circumstances connected with the formation and action of the Birmingham committee not mentioned in the joint letter of Dr. Carter and Mr. Ker, but which seem to me essential in order to enable your readers to judge how far its voice can have any claim to be considered the voice of the profession. In the first place it should be remembered that it was the refusal of the British Medical Association in public meeting assembled to adopt a resolution brought forward by Dr. Carter and Mr. Ker (and of which notice had been previously given), authorising the Council of the Association to select three names of gentlemen suitable for election, that "led to the summoning of the first small conference at Brighton." Next we have it on the authority of Dr. Strange, who presided at the Birmingham meeting, that out of 1100 circulars which had been sent out only about 300 had been responded to at the date of the meeting—a victory if you will, but one so uncommonly like a defeat that had the whole 300 met together he would have been a bold man who would have claimed for them the right to speak in the name of the medical profession of England and Wales. Instead of 300, however, thirty-five gentlemen met at Birmingham, and unanimously resolved—"That this meeting, fully impressed with the extreme importance of the present crisis, &c., deems it expedient to proceed at once to deliberate on the merits of the various candidates, and to solicit by requisition three fit and proper persons to undertake the office." No doubt the thirty-five felt themselves as competent as the 300 would have been to speak in the name of the profession, but somehow when the numbers present had dwindled down to fourteen, it was felt, I suppose, that a line must be drawn somewhere, and by a majority of 11 to 3 it was determined not to do what the 35 had resolved to do, but to take the opinion of the 300 by post-card, and that the three who received the highest number of votes should be the adopted candidates of the committee. Power was given to the chairman and secretaries to count the votes and declare the result, but no further power, according to the published reports. These three gentlemen, for each and all of whom personally I have the highest respect and regard, constitute, I presume, the sub-committee, in whose name the chairman, Dr. Strange, writes that they have resolved to substitute Dr. Glover, whose name stood fourth on the list, for Mr. Ernest Hart, who was third, though the number of those voting for each is not given. We are thus reduced in successive steps from 1100 to 300, from 300 to 35, from 35 to 14, from 14 to 3, and we are asked to accept the final decision of the three as the voice of the profession.

I am, Sir, your obedient servant,

October, 1886. H. NELSON HARDY.

THE IRISH BRANCH COUNCIL AND THE APPROACHING MEDICAL ELECTION.

To the Editor of THE LANCET.

SIR,—Some time since I wrote to you pointing out the dangerous powers allowed those councils in connexion with the approaching election, and suggesting as the only possible safeguard the presence of legal agents of each candidate at the scrutinies. My fears as to the competence (putting their *bona fides* for the moment out of the question) of the officers of these councils have been somewhat prematurely verified. A nomination paper was sent to me a few days since from the Irish Branch Council, which would have disqualified me had not a flaw in it been discovered just in time. This flaw escaped myself, but was detected by Dr. Doyle, of Mount-street, Dublin, to whose astuteness I desire to render public acknowledgment. I may as well tell English candidates that if the votes are counted in the dark no man will be safe.

I am, Sir, yours truly,

Oct. 12th, 1886. THOMAS LAFFAN.

TREATMENT BY MASSAGE.

To the Editor of THE LANCET.

SIR,—I have read with interest and some amusement the correspondence which has been going on in your columns on the above subject. When some years ago I first attempted the systematic treatment of certain forms of functional neurosis on the lines laid down by Dr. Weir Mitchell, there was, so far as I knew, no such thing as a "masseuse" in this country. I then had to instruct a nurse, with much trouble, from the few and imperfect descriptions of the process I could lay my hands on, but with results that were thoroughly satisfactory. She taught another, in a few lessons only, and from this origin I have obtained a staff of competent masseuses sufficient for my own purposes. When I published in 1881 my original paper on the systematic treatment of a class of disease hitherto practically abandoned as hopeless, I had to undergo an amount of obloquy which was quite surprising. Some of my professional friends did not hesitate to tell me that I had descended to the level of a charlatan, and other criticisms were made on me which would have been amusing had they not been painful. Fortunately, I held the theory that the first duty of a

physician is to cure his patient, and that it does not matter what means he employs for this purpose, provided they are such as he can adopt with clean hands and a clear conscience. Now, *nous avons changé tout cela:* no newspaper appears without half-a-dozen advertisements about massage, schools for massage have been started, every hospital has one or two nurses or sisters who practise it, and massage threatens to become the prevailing medical fashion, if not the prevailing medical folly, of the day. No morning passes but some deserving woman leaves her card at my door with "Professional Masseuse" beautifully printed upon it; and a new "El Dorado" seems to have been discovered for women in want of employment. Large works have been written on massage, and a perfectly simple matter has been rendered complex by such terms as "pétrissage," "effleurage," and the like—terms which I had never heard of when I first worked at this subject, and of which I am sure not one of the nurses I employ to this day understands the meaning. Lastly, we are now told that it takes two years at least for a woman to become a competent masseuse. Now, I have taken some pains to ascertain how many lessons the women who work for me have had, and I find that none of them ever had more than a half-a-dozen, although, of course, they have vastly improved by subsequent practice; and I will venture to say that no one who cannot learn the knack of massage sufficiently to start with in six lessons will learn it in two years or twenty, since the thing requires a natural aptitude which very few possess. The plain truth, stripped of verbiage, is, that massage is nothing more than a vicarious way of giving exercise to patients who cannot take it themselves, and if the operator does not produce sufficient waste of tissue to enable the patient (possibly bedridden for years) to eat and assimilate without trouble as much food as I choose to order, and steadily to gain in nutrition, she knows very well that I consider the fault hers, and that she will not be allowed to continue her work. Whether this is done by "pétrissage," or "effleurage," or anything else, is a matter of indifference to me. "By their fruits ye shall know them" is a text thoroughly applicable to this subject, and practically I have myself never seen massage employed and do not care how it is done; and yet I will venture to say that the results I have obtained are quite equal to those secured by anyone else.

That massage is capable of doing much good in conditions other than those for which I have employed it is perfectly likely; personally, I have only used it in the regular and systematic treatment of grave functional neuroses, being anxious to avoid the imputation of riding a hobby too hard. Moreover, I have taken pains to show that this is not by any means the most important agent, the striking results being quite as much, if not more, due to removal from unwholesome domestic surroundings, and to personal moral influence brought to bear on the patient. And yet, perhaps because massage is a striking thing, people will insist on calling this a massage treatment, whereas massage is a mere remedial agent, and only one out of many brought to bear on the case. If I may judge by numerous instances I have lately seen, massage now runs the risk of being employed in cases for which it is perfectly unsuitable, and in which it can do nothing but harm. As a means of depriving rest, voluntary or enforced, of its evils it is invaluable; as a panacea for all the ills which flesh is heir to, like all such panaceas, it is sure to lead to failure and disappointment. As I feel that I am unwittingly in some degree responsible for this epidemic of massage, perhaps you will permit me to sound this note of warning.

I am, Sir, yours &c.,

W. S. PLAYFAIR.

George-street, Hanover-square, W., Oct. 16th, 1886.

To the Editor of THE LANCET.

SIR,—I should be content to leave Dr. Murrell's remarks in THE LANCET of October 16th unanswered were they not calculated, under cover of a rebuke addressed to myself, to confuse a very simple issue.

In my letter to you I did not, as Dr. Murrell supposes, confound massage with the Weir Mitchell treatment, but, on the contrary, alluded to the refinements which had been imported from the Continent, and quoted Dr. Playfair's opinion that "massage had been made complex by the absurd way it had been written on abroad, and the divisions and names given it." Had it been to my purpose, I could, with but little additional trouble, have got together a number of foreign names, "Philippeaux, Gautier, Estradère, and a host of others." But it so happens (and herein is the gist of the whole matter) that, in spite of this host, there is no other form of massage whatever which has taken root or is commonly practised in this country, save and except that which Dr. Weir Mitchell describes. For years that method, and that method only, has been largely employed in our hospitals and nursing establishments, and always under the name of massage—not out of any love of that word or its associations, but to avoid confusion with the old and useless "medical rubbing." And so, when it was said in THE LANCET of Oct. 2nd that the art of massage required a long education, I venture to think that there was no reader of your journal who did not suppose that reference was made to a process which is now becoming familiar, and of the good effects of which in suitable cases there is unquestionable evidence. To say of this process that it needed two years to learn seemed to me a misleading and injurious statement, to which the wide circulation of THE LANCET would give general currency. Hence my letter in which I ventured to suggest that weeks should be substituted for years.

As for "the *true* massage, as practised by Professor von Mosengeil, and others on the Continent," I should never presume to meddle with it; and I feel some confidence that any statement in regard to that practice, whether as to the time it takes to learn or the class of patients it seeks to cure, would be received with but languid interest in Great Britain, where there are so few medical men who feel themselves qualified by their own observation either to confirm or deny any assertion whatever upon the subject.

Let me add that I have no wish to interpose between Dr. Murrell and his readers. In writing on behalf of those I am bound to defend—my own hospital sisters and nurses—it was to the statement of THE LANCET that I took exception, avoiding all reference to a book I have neither read nor seen, and which it is not for me to criticise.

I am, Sir, your obedient servant,

October, 1886. OCTAVIUS STURGES.

AN IODISED HYDROGEN WATER FOR USE IN THE URIC ACID DIATHESIS.

To the Editor of THE LANCET.

SIR,—The need of a simple water which may be taken freely by persons suffering from uric acid accumulations, with the effect of washing out the acid and its salts, has been long felt. For myself, I believe the value of "waters," generally, depends much more on their capacity for taking up and washing out excrementitious matter while passing through the blood and the extra-vascular fluids of the organism than upon the specific effect of anything they introduce into the system. I have now to suggest that an excellent and potable water may be made by very slightly iodising distilled water, or dissolving in it a minute quantity of hydriodic acid—not enough of either to render the taste disagreeable,—and then passing well-washed hydrogen gas through it. Water will only dissolve about 2 per cent., by measure, of hydrogen gas, but this is by no means an inconsiderable proportion as compared with that existing in many of the natural waters of high repute; and beyond question it greatly increases the capacity of the water for holding solids in solution. I venture to think the profession will find the use of a simple non-effervescing water of this description of great value, and it can readily be prepared by any competent chemist. It is the measure of the hydrogen, and not the weight, which must by regarded; 100 cubic inches only weigh 2·25 grains. I am, Sir, yours obediently,

Hanover-square, Oct. 16th, 1886. J. MORTIMER GRANVILLE.

"MEDICAL MEN AND DEATH CERTIFICATION."

To the Editor of THE LANCET.

SIR,—An annotation appears in your issue of October 16th commenting on an inquest which was held by Mr. Braxton Hicks on October 2nd, which is founded on a misconception of the real facts of the case. In justice to the parties concerned in the case, I must appeal to you as an impartial medical tribunal to insert the following correction. The deceased, George Wadley, who was well known to me, was seen and prescribed for by me on September 27th. On the

29th I was sent for to see him, and my assistant, Mr. Davenport, went. Seeing that the patient was very bad, he came down to Dulwich, where I was at the time, to ask me to see him. During his absence, a neighbouring practitioner was called in, and found the patient dying. This practitioner felt it incumbent on him to write to the registrar and state that deceased had not been attended by a qualified man, and that his friends were dissatisfied at the treatment. All this was disproved at the inquest. On Friday evening, Oct. 15th, a message came to my surgery in Vincent-square for me to go and see a baby which had been born early that morning, and which had since died. On inquiry, I found that the mother of this child had been attended by a student of the Westminster Hospital, who lives in Vincent-square, and that the child had died without having been attended by a qualified man. I should like to ask, through the medium of your columns—1. If Mr. Bond, the assistant-surgeon of the Westminster Hospital, is still of the same opinion that he was at the inquest on George Wadley—viz., that "students never, under any circumstances, do the work of qualified men either in or out of hospital"? 2. If an inquest is necessary in the public interest on a man who has been seen by a qualified practitioner within two days of his death, is it not still more necessary in the case of a new-born baby which has not been seen by a qualified man at all? 3. Which is the most competent to act as attendant on the sick and lying-in—a man who has had sixteen years' practical experience of the profession, and has passed the Final Examination of the Royal College of Surgeons of England in medicine and surgery, or a student who has in all probability passed nothing but the Primary?

I am, Sir, your obedient servant,

WALTER H. H. DAY, M.B. Toronto, &c.,

East Dulwich and Vincent-sq., S.W., Oct. 1886.

HOSPITAL FOR WOMEN, LIVERPOOL.

To the Editor of THE LANCET.

SIR,—The opinion expressed by Sir Spencer Wells on this institution is amazing. He says that to subject 111 patients out of 347 (or 32 per cent) to abdominal section "is so shocking as to be almost incredible." But I find from the records of the London Samaritan Hospital that Sir Spencer Wells used to subject 40 per cent. of his patients to abdominal section; and from the enormous numbers of "tappings" (with a high mortality) this 40 per cent ought to have been much higher.—I am, Sir, yours &c.,

October, 1886. LAWSON TAIT.

"FRACTURE THROUGH THE UPPER EPIPHYSIAL LINE OF THE RADIUS."

To the Editor of THE LANCET.

SIR,—In THE LANCET of October 2nd a case is reported in which the above lesion is said to have occurred. May I be permitted, through the medium of your columns, to inquire on what symptoms or physical signs the diagnosis was founded? The occurrence of such a rare lesion requires to be substantiated by further evidence than is brought forward by Mr. Foulerton. The facts before us—viz., the age of the patient (nineteen months), the nature of the accident (forcible traction in the long axis of the forearm), and the only recorded symptom (the arm hanging helplessly)—tend to establish the diagnosis of subluxation of the orbicular ligament, a condition which has been described by Mr. J. Hutchinson, jun. ("Annals of Surgery," Aug. 1885), as the ordinary solution of those obscure injuries of the elbow so commonly met with in young children, and which are usually the result of an accident such as that narrated by Mr. Foulerton. In such cases spurious crepitus is often elicited by alternate pronatory and supinatory movements of the radius, which might lead one to suspect fracture (or separation of epiphysis) were it not for the fact that by careful manipulation the head of the radius may in most cases be ascertained to rotate with the shaft. Even when this rotation is not apparent, the free mobility of the joint and speedy relief from pain which soon follow reduction of the displacement, together with the fact that in a few days no symptom of the injury remains, forbid us to entertain the idea of fracture. Fracture of the neck of the radius is, to say the least of it, very rare (a case is reported in THE LANCET of March 21st, 1885), and can only be conceived as occurring under certain conditions of direct violence. It is still more difficult to conceive the mechanism by which separation of the upper epiphysis could be effected (Treves's "Surgical Applied Anatomy," p. 225), especially in such an accident as is stated to have produced it, unless, perchance, the line of union of epiphysis with the shaft were, at the time of the accident, the seat of disease.

I remain, Sir, yours truly,

J. W. BATTERHAM, M.B., F.R.C.S.

St. Leonards, Oct. 2nd, 1886.

MANCHESTER.

(From our own Correspondent.)

DIRECT REPRESENTATION IN THE GENERAL COUNCIL.

ALTHOUGH no such vigorous and organised steps have been taken here in connexion with the approaching elections to the Medical Council as at some other places, the subject has nevertheless received some attention, not merely by individual members of the profession, but to some extent by the profession collectively. A meeting was held last week at the Town Hall under the presidency of Dr. Walmsley, at which there was a good attendance, more especially of the general practitioners of the district, the representatives of the higher ranks of the profession, such as the staff of the infirmary and the teachers in the College, taking but little active part in it. The object of the meeting was to discuss the claims of Dr. Dolan, of Halifax, as a candidate for election. Dr. Dolan laid his views of medical politics before the meeting, and, other gentlemen having spoken, it was resolved to support the candidature of Dr. Dolan as a fit and proper person to represent the general practitioners in the Council.

THE NEW SESSION.

Although nominally no introductory address was delivered at the opening of the medical department for the present session, practically the students have had more than one such address; for, in addition to the speech-making at the *soirée* reported in this column, Dr. Stirling, in opening the class of Physiology, gave a very interesting lecture of a more or less general character. He also stated that arrangements have been made for the delivery of a course of physiological lectures, more especially in relation to health, under the auspices of the Combe trustees, which will be free to all students of the College.

OUR MUNICIPAL ELECTIONS

are beginning to attract some attention now, and it is rumoured that amongst the possible aspirants to municipal honours may be one of our leading medical men—one, too, who has taken much practical interest in matters relating to sanitation and other measures for improving the health and lives of the masses of the people. It is now some years since a member of the medical profession had a seat upon the City Council, and one who can devote the necessary time to the work will find ample scope for his powers, and will be able to render much assistance to such active sanitarians as Mr. Councillor Southern and others who, like him, are striving to educate the poorer classes in the elementary principles of hygiene and health. A lecture, lately delivered by Mr. Southern under the auspices of the Ancoats Recreation Committee, is a commendable effort in this direction.

WORKHOUSE DIETARIES.

Amongst other public utterances recently delivered by gentlemen holding public office, may be mentioned a paper read by Dr. Rhodes, of the Chorlton Board of Guardians, at the late Poor-law Conference held in Liverpool (presided over by the Right Hon. J. T. Hibbert) upon workhouse dietaries, in which he showed the anomalies at present existing, and strongly urged a more uniform character in the diets of our different unions. Another paper by Mr. Rorke, of the Manchester Board of Guardians, upon the abuse of lying-in wards and lock wards in workhouse infirmaries, deserves attention by all members of the profession who take an interest in the administration of our Poor-law system.

AN UNNATURAL MOTHER.

Visitors to the Weirtz Gallery at Brussels will remember, among the weird and strange creations of that artist's

brain, a horrible picture of a woman sitting over a fire and cutting a young infant up into pieces; what seems almost a realisation of this in every-day life appears to have taken place in Ancoats, one of the poor and crowded parts of the city. A woman was taken to the Ancoats Hospital who from her condition was suspected to have been recently delivered of a child, and upon search being made at her house, the charred remains of a new-born infant were discovered in the fireplace.

Manchester, Oct. 19th.

EDINBURGH.

(From our own Correspondent.)

THE LATE DR. DUNSMURE.

EDINBURGH and its Medical School have sustained a great loss in the death of Dr. Dunsmure, who has been for many years a well-known figure in the city and a leading and honoured member of its medical circles. Throughout his long professional career, which dates from 1835, when he graduated in the University and in the College of Surgeons of Edinburgh, Dr. Dunsmure has held a series of important posts in connexion with the Edinburgh School. Prior to his graduation he had been apprenticed to the celebrated Mr. Liston, and had been closely associated with and carefully trained by that surgeon; and upon obtaining his degree he held consecutively important posts in the Royal Infirmary under the leading teachers of that day. After a period of study on the Continent, he returned to Edinburgh as assistant to Lizars, and subsequently became surgeon to the infirmary. This appointment was held by him till 1856, when he resigned the office in which he had long and arduously laboured, receiving upon his resignation the post of consulting surgeon to the infirmary, a post which he occupied up to the time of his death. In 1866-67 he was president of the Royal College of Surgeons of Edinburgh, for many years he was on the examining board of that College, and latterly he was examiner in Clinical Surgery in the University. He was a Fellow of the Royal Society of Edinburgh, and was connected with many other scientific bodies. His contributions to medical literature are for the most part papers dealing with practical questions in surgical treatment, the outcome of his extensive experience as a hospital surgeon and successful practitioner. Dr. Dunsmure was remarkably active physically as well as mentally; he was a member of Her Majesty's body-guard of Archers, and an enthusiastic and successful bowman, securing the Queen's prize at three of the annual archery competitions. Dr. Dunsmure was warmly interested in philanthropic efforts, and in questions affecting the welfare of the community at large. His death will be mourned by a much wider circle than that of his professional brethren and the large *clientèle* of patients, amongst whom he enjoyed the greatest popularity.

THE WINTER SESSION.

The winter session of the University was opened on Tuesday, the 19th, by Sir William Muir, Principal of the University, who delivered the customary inaugural address. In reviewing the chief events of the academic year just completed, he mentioned the increase which has steadily and continuously taken place in the number of students, and which this year has raised the total to 3563, the increase being chiefly in the Faculties of Arts and Medicine. He was in a position to announce publicly, what has for some time been a matter of more or less confident rumour, that, through the munificence of a fellow-citizen, the University buildings are shortly to be completed, and a hall provided for graduation and other University ceremonials. After alluding to the new degrees conferred by the University in Music, Agriculture, and Theory of Education, Sir William gave his hearers sound and practical advice as to the conduct of their studies, and wished them all success in the session thus inaugurated.

THE LORD-RECTORSHIP.

Owing to the withdrawal of Professor Freeman's candidature, the contest for the Lord-Rectorship will be fought out on party grounds, as has been the case in many former elections. The electorate consists of all students matriculated in the University at the date of the election; and the candidates now in the field are Sir Lyon Playfair (Liberal) and Lord Iddesleigh, the present Lord-Rector (Conservative). Party feeling is already running high amongst the undergraduates, although the polling will not take place for some weeks.

THE POST-GRADUATE COURSE.

Prior to the conclusion of this series of demonstrations a meeting of the graduates was convened, and a resolution was unanimously adopted thanking those who had conducted the classes for the care and trouble they had taken. A copy of the resolution was forwarded to each of the lecturers who took part in the course.

Edinburgh, Oct. 20th.

ABERDEEN.

(From our own Correspondent.)

THE UNIVERSITY.

AT a meeting of the General Council of the Aberdeen University, held on the 13th inst., the following motion was proposed by Professor Struthers, and carried unanimously: "That the council respectfully represent to the University Court the importance of the court using its influence (1) to obtain from the Government without delay a special grant for the extension of the buildings of the University; and (2) to secure that the Universities (Scotland) Bill, which the Government have announced their intention of introducing into Parliament in the approaching session, do not contain those parts of the Bill (especially Clauses 23 and 24) which implied, or rendered possible under the Bill, the termination of the connexion of the universities with the State." Some time ago the Senatus had under consideration the grouping of subjects in the "professional" examinations, and it was resolved (Professors Struthers and Ogston dissenting) to ask the University Court to sanction the following changes:—"(1) To have only one examination in Anatomy (instead of two as at present), and that at the end of the second winter session; (2) to transfer Surgery from the second to the final examination; and (3) to make Pathology one of the subjects in the 'second professional.' The University Court to sanction the following changes:—(1) To have only one examination in Anatomy (instead of two as at present), and to hold it at the end of the second winter session; (2) to transfer Surgery from the second to the final examination; and (3) Pathology to form one of the group of subjects in the second." If these changes are carried out Dr. Ogston will suffer a considerable financial loss for the first year after they come in force, and it is said that he intends claiming compensation from the University funds. This is a matter that is likely to give the University authorities a good deal of trouble. The winter session opens to-morrow (Wednesday). The preliminary examinations began on Monday, and are being continued to-day; there are 120 candidates. The number of bursaries for medical students is, thanks to the persistency with which Dr. Struthers keeps the subject before the public, slowly but satisfactorily increasing. A sum of £500 has just been left to the Aberdeen Medico-Chirurgical Society to found a bursary or bursaries "to be given to students of medicine showing the greatest efficiency." The conditions upon which the bursary is to be awarded are vague, but details are left to the Society to settle.

DIRECT REPRESENTATION ON THE MEDICAL COUNCIL.

At a special meeting of the Medico-Chirurgical Society called to consider what steps, if any, should be taken to procure a suitable representative on the Medical Council, the following resolutions were unanimously agreed to:—"1. The Society views with satisfaction that the long-urged claim of the general body of the profession to be represented directly on the Medical Council has at last been granted by the Medical Act of 1886. 2. In view of the approaching election of a direct representative for Scotland on the Medical Council, the Society is strongly of opinion that, in view of the very full representation already accorded to the medical and surgical corporations and the universities, the direct representative for Scotland ought to be one who is unconnected with the governing body of any of the corporations, or with the professoriate of any of the universities." At the same time the members of the Society expressed themselves as strongly in favour of the candidature of Dr. Bruce of Dingwall, who will receive the almost unanimous support

of the profession in and north of Aberdeen. Dr. Sinclair of Dundee is carrying on an active canvass through his large and energetic committee, and it is said that he and Dr. Bruce have come to an understanding that when it can be ascertained which of the two is to receive the greater number of votes, the other will retire in his favour. This arrangement meets with the approval of their supporters, and thus it is expected to defeat Dr. Morton of Glasgow, whose coming forward is resented by the general practitioners because of his connexion with the corporations in Glasgow, which are already represented on the Council.

HEALTH OF THE CITY.

The medical officer's report for last month shows that the death-rate was equal to the annual rate of 18·22 per 1000, while for September of last year it was only 14·2 per 1000. Scarlet fever has become epidemic, so much so that it was found necessary to appoint an extra assistant to the sanitary inspector. During the month 107 cases of scarlet fever were reported, 10 cases of typhoid fever, and a considerable number of cases of measles. There are more than 80 patients in the city hospital, almost all suffering from scarlet fever. The committee have spent £423 in providing for the better heating of the wards, hot water being circulated throughout all the pavilions of the hospital. They have also resolved to procure a Washington Lyon's patent disinfecting machine, which is estimated to cost about £300.

Aberdeen, Oct. 19th.

GLASGOW.

(From our own Correspondent.)

PURIFICATION OF THE RIVER CLYDE.

THE perennial Clyde purification question was discussed at a public meeting in Glasgow a short time ago. On this occasion the question was raised and the meeting called together at the instance of a non-official sanitary reformer who has taken the river Clyde under his special care. After a lively interchange of views, those present at the meeting negatived a proposal to the effect that "an association be formed to promote a Bill in next session of Parliament to authorise the formation of a board or boards having power to construct the necessary works," and declined to take the matter out of the hands of the Town Council, under whose consideration it has been for many years. This decision reflects pretty accurately the feeling of the citizens of Glasgow. Doubtless the state of the river is exceedingly bad; indeed, it could scarcely be much worse. For miles it is little better than a long open sewer, the contents of which, especially when simmering under a summer sun or when stirred up by the paddles or propeller of a passing steamer, give forth a most offensive odour. But this offence to the nostrils seems to be about the worst that can be said of the nuisance. There is nothing to show that it has at any time had any evil effect on the health of the city in general, or on that of the riverside population in particular. The fact seems to be that such gases as are evolved are dangerous only when pent up in sewers in such a way as to gain entrance into dwelling-houses, but that as soon as they reach the open air and are dissipated by the free winds of heaven they become harmless—partly perhaps from mere dilution, more probably from oxidation. Notwithstanding all this, the filthy condition of the Clyde is a reproach to the city, and perhaps the resolution adopted at the recent public meeting, urging the Council to push the matter on, and to make representations to the present Government concerning it, may lead to the adoption of more energetic measures, and the bringing about of an improvement in the state of the river. Many schemes for effecting this end have been put before the public from time to time, committees have discussed the question, reports have been published, and so on; but the city has always shrunk from resolutely dealing with the matter—partly from the feeling that, after all, the urgency is not so very great, as danger to health has not been demonstrated; partly on account of the vast expense—one scheme considered in 1866 by Messrs. Bateman and Bazalgette involved the construction of intercepting sewers to carry the sewage to some point on the coast and the expenditure of £3,000,000; partly on account of the reluctance of many landed proprietors to countenance any such great undertaking, and the refusal of most of the burghs concerned in the pollution of the river to co-operate with Glasgow in removing the nuisance. Plainly the affair is not one in which Glasgow can embark alone or lightly, and energetic Government intervention in the case of the Clyde and several other rivers in Britain may be required.

Scarlet fever is still very prevalent in Glasgow. Of the 411 cases in Belvidere Fever Hospital at the present time, no fewer than 315 are due to that disease. The death-rate for the past week was 24 per 1000 per annum.

IRELAND.

(From our own Correspondent.)

COLLEGE OF PHYSICIANS IN IRELAND.

AT the annual stated meeting of the College, held on St. Luke's day, the 18th inst., Dr. James Little was appointed President for the ensuing year. At the same meeting Dr. Aquilla Smith was, as usual, re-elected representative of the College on the General Medical Council. The following gentlemen were appointed members of the Committee of Management under the Conjoint Examination Scheme—viz., Drs. Lombe Atthill, Samuel Gordon, and T. W. Grimshaw. Dr. C. E. Fitzgerald and Dr. W. C. Neville were duly elected to the Fellowship of the College.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

Last week the following address was presented to the Lord-Lieutenant by the President and Council of this College:—"May it please your Excellency,—We, the President, Vice-President, and Councillors of the Royal College of Surgeons in Ireland, desire to approach your Excellency with the object of tendering you our heartfelt greetings upon your arrival in this country as the representative of our beloved and Most Gracious Queen, to whom we avail ourselves of this opportunity to present, through your Excellency, our respectful congratulations on the completion of the fiftieth year of her glorious reign. This College, founded more than one hundred years ago, with the object, as expressed in our Charter, 'of improving surgical education in this part of Her Majesty's dominions, thereby promoting the welfare of the nation at large, and of providing a sufficient number of properly educated surgeons, as well for the service of the public in general as for that of our army and navy,' has not neglected in the education of its pupils the sister branches of medicine, and has thereby secured on the part of its licentiates a complete knowledge of surgery, medicine, and midwifery. We feel ourselves justified in stating that from the foundation of the College up to the present moment, the authorities to whom the administration of its affairs has been from time to time entrusted have never relaxed their efforts faithfully and loyally to carry out these views. These principles have commended themselves to the favourable consideration of the Government, and have been embodied in the Medical Act of 1886, wherein it is provided that no person shall be registered under the Medical Acts unless he has passed a qualifying examination in medicine, surgery, and midwifery. In conclusion, we would fain hope that your Excellency would extend your favour to our institution, and by an early personal inspection satisfy yourself that, uninfluenced by sectarian or political bias, we steadily keep as the objects in view the advancement of the honour, dignity, and reputation of our profession and the promotion of the welfare of the public at large."

BARRINGTON'S HOSPITAL, LIMERICK.

A meeting of the governors was held last week for the purpose of considering the financial condition of this hospital. It appears that a debt of £885 is due, and after a considerable discussion it was resolved to appoint a committee to report as to the general condition and working of the institution.

HOSPITAL FOR INCURABLES.

On Monday last her Excellency the Marchioness of Londonderry visited this institution, the viceregal party being conducted over the entire hospital, where they spent a considerable time. The Marchioness, with thoughtful consideration, distributed to each inmate choice fruit and flowers, which had been previously sent in from the vice-regal gardens.

Dublin, Oct. 19th.

PARIS.

(From our own Correspondent.)

THE FRENCH SURGICAL CONGRESS.

THE French Congress of Surgery inaugurated its second annual meeting last Monday. The president for the year is M. Ollier. After thanking the President of the Senate (M. Le Royer) and the Rector of the Academy of Paris, who represented the Minister of Public Instruction, on the platform, M. Ollier complimented the members on the flourishing condition of the young association, as shown by the large number of their adherents, both in France and abroad, and pointed out the advantage of a Congress, where the value of the work would not be lessened by the difficulties arising out of a diversity of languages. He concluded by insisting on the necessity of a division of labour in scientific medicine, but which, whilst creating specialities, should re-concentrate the work of all in co-operation. The Secretary-General (M. Pozzi) then gave an account of the financial situation of the Congress, which is most satisfactory. M. Reverdin of Geneva read the first communication, on the "After-effects of Extirpation of the Thyroid." In eleven cases observed by M. Augustus Reverdin and himself, the operation was followed by "cachexia strumipriva," or "operative myxœdema," in five instances. This agrees with the results published by Kocher, in which sixteen of eighteen and twenty-four of thirty patients subjected to thyrodectomy developed symptoms of myxœdema. It must be noted that Billroth, whose experience in the matter was very great, had never seen the so-called cachexia strumipriva, neither had Manz, nor Bardeleben. Bottini, in fifty-two cases, had not observed any of the kind. M. Reverdin alluded to the experiments of Horsley, which prove that myxœdema can be induced in the monkey by ablation of the thyroid, and concluded his paper as follows:—The symptoms consecutive to extirpation of the thyroid in man present the same general character as those known as myxœdema or pachydermic cachexia, and the term "operative myxœdema," as proposed in 1883, appears justified. The total extirpation of the thyroid in man is not invariably followed by myxœdema. Operative myxœdema presents several varieties, progressive—with and without remissions, and attenuated kinds capable of improvement or even cure, &c. Partial removal of the thyroid may be followed by myxœdema of an abortive form. M. Thiriar of Brussels quoted a number of cases showing the importance of a quantitative analysis of the urine in abdominal surgery. In tumours of a malignant nature the quantity of urea excreted in the twenty-four hours never reaches 12 grammes, whereas this amount is always exceeded when the growth is benign. M. Guyon discussed the indications and contra-indications of rapid lithotrity. "Large calculi make lithotrity difficult, as do also multiple calculi, or painful contraction of the bladder. But are these cases, without which the statistics of lithotrity would be irreproachable, successfully treated by cutting"? In the opinion of Professor Guyon the contra-indications of rapid lithotrity are to be looked for rather in the bladder itself than in the size or number of the calculi, and the chief object of the surgeon should be to secure perfect antisepsis.

Yesterday the proceedings of the Society opened by a discussion on the Nature, Pathology, and Treatment of Tetanus. M. Vaslin of Angers maintained that tetanus was a neurosis, and should be treated as such—above all, by isolation in a dark room—a method adopted for their patients with great success by veterinary practitioners. M. Vaslin advises coincidently the use of chloral "to saturation," and morphia until the cessation of convulsive spasms. M. Balestreri of Genoa also looks on tetanus as a neurosis, but does not agree with M. Vaslin as regards treatment. In seventeen cases collected by him and treated by chloral there were eleven deaths. Mr. Balestreri gives his preference to tartar emetic, and states that in three cases so treated by him recovery took place in each instance. The dose was progressive from five to eight grains a day. M. Thiriar is a supporter of the parasitical nature of tetanus, and spoke of a recent epidemic in the neighbourhood of Brussels. Professor Verneuil pointed out that tetanus was certainly infectious in the horse, and according to him in man also. The contagion from horse to man is also probable, for the following reasons:—1. It is a common thing to hear of men living in contact with horses suffering from tetanus, and dying of the disease. 2. Tetanus in man results oftenest from injuries caused by horses. 3. Horse-dealers, grooms, and stable-men are more often than others the subjects of this malady. 4. Wounds in contact with a soil contaminated by the dejections of horses are more often followed by tetanus than others. Dr. Blanc of Bombay, recognised the equine origin of tetanus, but did not think any solution of continuity necessary for the introduction of the poison. In India, as is the case in cholera, the poison is absorbed with water, and in the hot season, those who drink from the contaminated wells imbibe tetanus. As to remedies, some, as the bromide of potassium, are dangerous, others are useless. Rest and quiet, and perhaps a little chloral, are indicated. The Hindoo doctors pay great attention to the bowels and treat their cases with purgatives, and, it is said, successfully. M. Poncet of Lyons related a case of bone-grafting, which establishes the facts that the grafts may be taken with security from a healthy dead child. In this instance, the grafts were taken from a stillborn infant. M. Terrillon has met with torsion of the pedicle in four per cent. of his cases of ovariotomy. This may give rise to hæmorrhage in the parietes or in the cyst, œdema, or rupture of the cyst into the peritoneum. When the torsion is complete, the interference with the circulation may lead to mortification. What surgical treatment should be adopted? M. Terrillon thinks that ovariotomy should be hastened. The most acute peritonitis is no counter-indication, for it is precisely in this case that laparotomy and washing out the peritoneal cavity are most justifiable.

Paris, Oct. 19th.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having undergone the necessary examinations for the diploma, were admitted Members of the College on the 18th inst.:—

Barlow, Arthur Edward, M.B. Edin., Rothwell, Northampton.
Barrett, Ernest, L.S.A., Dulwich.
Bramwell, Hugh Ransom, M.B. Edin., Carrington, Notts.
Buchanan, John, M.D. Glas., Wigan.
Holroyd, George Abraham, L.K.Q.C.P.I., Scarborough.
Mollison, Crawford Henry, M.B. Melb., Melbourne.
Nash, Charles, L.S.A., Greenwich.
Röhrsmann, Matthias Christian, L.R.C.P.L., Sydney, N.S.W.
Sawell, Frank Leslie Pownall, L.S.A., Holland-park.
Stevenson, George, L.S.A., Edgware-road.
Wilson, Foden, Liverpool.
Wonteraz, George Justin, L.R.C.P. Lond., Torrington-square.

Admitted on the 19th inst.:—

Barrett, Sidney Edward, L.R.C.P. Lond., Stepney.
Blakeney, John Henry, L.R.C.P. Lond., St. Heller's, Jersey.
Braide, George Frederick William, M.D. Vict., Warrington.
Cole, John Martin Coates, L.K.Q.C.P.I., Peel, Isle of Man.
Fitz-Henry, George William, L.S.A., Forest-hill.
Gardner, Frank Gower, L.S.A., Bromsgrove.
Kent, Charles George, M.B. Melb., Melbourne.
Melland, Brian, L.S.A., Manchester.
Orton, Francis Joseph Johnson, L.S.A., Longford, near Coventry.
Pettingill, Alfred Ernest Albert, L.S.A., Great Yarmouth.
Roxburgh, David, M.B. Glasg., Douglas, Isle of Man.
Shields, Charles James, M.B. Melb., Melbourne.
Sibley, Walter Knowsley, L.S.A., Harley-street.
Wallace, David, M.B. Ed., Edinburgh.

Admitted on the 20th inst.:—

Ackland, William Robert, Exeter.
Ashley, John, Leeds.
Barling, Arthur Stanley, Leeds.
Blamey, John Henwood, Penryn.
Bradford, John Rose, Blomfield-road.
Bulstrode, Herbert Timbrell, Ipswich.
Cheale, Montague, Great Ormond-street.
Clarke, James Jackson, Lincoln.
Cosens, Charles Hyde Champion, Dudley.
Fitz Gerald, Gerald Eustace, Westbourne-park.
Glanville, Mark, South Kensington.
Green, Charles, Birmingham.
Kelly, Thomas William, Apperley-bridge.
Lawson, Hugh, Dorset-square.
Leigh, Randle, Liverpool.
Lys, Henry Grabham, Bere Regis, Dorset.
Martland, Thomas, Standish, near Wigan.
Moore, James, Jersey.
Pearse, Arthur William, L.R.C.P. Lond.
Roe, Henry Haviland, Poyntington, Somerset.
Seagrove, Herbert Aylward, Haverstock-hill.
Smith, Hugh, Bow-road.
Tucker, Robert Frank Wrentmore, Clifton, Bristol.

Valpy, Charles Edward, Hampstead.
Way, Lewis, L.R.C.P. Lond.
Wickham, Onslow Arthur, Arundel-square.
Woolicombe, Walter Ley, L.R.C.P. Lond.

UNIVERSITY OF CAMBRIDGE.—At a congregation held on the 15th inst., the degree of M.B. was conferred on

Herbert Lund, Trinity.

ROYAL COLLEGE OF PHYSICIANS IN IRELAND.—The following office-bearers have been elected for the ensuing year:—President: James Little. Vice-President: J. M. Finny. Censors: J. H. Benson, J. M. Finny, S. M. MacSwiney, W. J. Smyly. Examiners in Midwifery: A. J. Horne, J. R. Kirkpatrick. Additional Examiners: G. F. Duffey, A. W. Foot, C. Nixon, J. M. Purser, W. G. Smith. Professor of Medical Jurisprudence: Robert Travers. Registrar: J. W. Moore. Treasurer: Aquilla Smith. Representative on the General Medical Council: A. Smith.

At the October examinations the following obtained the licences in Medicine and Midwifery of the College:—

MEDICINE.—Francis J. Cruise, Benjamin Adams Danieli, Herbert Davison, Kildare Dixon Dobbs, George A. Holroyd, Robert L. Island, Francis P. James, John Lagan, Victor E. Ludlow, Joseph Moloney, John J. Myers, Leonie Vau-Onerbeke, William J. Scott, John Thomas, Frederick W. Stokes, John Toppin, C. L. Warke, Charles S. Woodwright, William H. E. Woodwright.

MIDWIFERY.—Joseph Moloney, William T. Mullally, John J. Myers, Leonie Vau-Onerbeke, William J. Scott, John Toppin, Charles S. Woodwright, William H. E. Woodwright.

The undernamed have been admitted Members:—

Alfred Asbury, Army Medical Department; Charles E. Macnamara, Government Medical Service, British Guiana; Kevin I. O'Doherty.

The following have been granted the certificate in Sanitary Science:—

Charles Edward Macnamara. | William Thomas Mullally.

SOCIETY OF APOTHECARIES.—The following gentlemen passed their examination in the Science and Practice of Medicine, Surgery, and Midwifery, and received certificates to practise, on Thursday, the 14th inst.:—

Gardner, Frank Gower, Tatnall Hall, Broomsgrove.
Macintyre, Æneas Donald Mackay, Ebchester, co. Durham.
Morse, Frederick Batho, Bastein-park-road, Shepherd's-bush.
Nason, Edward, Sparkhill, Warwick-road.
Ramsay, Frank Winson, Wickham-road, Brockley.
Sequeira, George William, Waltham Lodge, Tulse-hill.

MR. ALFRED BOLTON, L.R.C.P. Lond., has been appointed Justice of the Peace for the district of Port Nolloth, Cape of Good Hope.

BAD MEAT.—The manager of a co-operative society at Long Eaton was last week fined in a heavy amount for selling pork in a state unfit for human food.

BEQUESTS.—The late Mr. James Harrison, of Monkstown, has left £200 to St. Michael's Hospital, Kingstown, and £100 to St. Vincent's Hospital, Dublin.

SUPERANNUATION.—Mr. F. Rawle, M.R.C.S., late medical officer of the Titchfield district of the Farnham Union, has been granted a superannuation allowance of £26 for one year.

THE RIVER LEA.—According to the report of Dr. Tripe to the Hackney Board of Works, the condition of the River Lea is still far from satisfactory, and the attention of the Tottenham Local Board is to be called to the matter.

THE YORK HEALTH EXHIBITION.—The York Hospital and Dispensary Fund has been enriched to the extent of £92 as the result of the hospital fête in connexion with the above exhibition.

UTILISATION OF SEWAGE.—The Epsom Local Board has authorised the taking of the steps necessary to secure the purchase of land for the purpose of utilising the sewage for irrigation.

OWENS COLLEGE.—The Dauntesey Entrance Medical Scholarship (£100 for one year) has been awarded to Herbert Horrocks, and the Robert Platt Physiological Scholarship (£50 per annum for two years) to A. E. Giles.

THE NORTHERN INFIRMARY, INVERNESS.—In the report of General Fasson on the constitution and management of this infirmary, various changes are suggested with the view of promoting order and enabling the nurses and others to attend with greater convenience to patients under their charge. It is, moreover, proposed that the medical staff should consist of four medical gentlemen and a house-surgeon.

THE LIVERPOOL INTERNATIONAL EXHIBITION.—We understand that the gold medal has been awarded to Dr. R. A. Mowll's Folding Ambulance Chair for use in ships of war, troop-ships, &c., which was described in our pages a few months ago.

PUBLIC MORTUARIES.—The absolute necessity for the provision of one at least of these accessories in every parish in the metropolitan area is not yet, it appears, practically acknowledged by the authorities of some London districts—Kilburn amongst others.

THE NEW SEWAGE WORKS AT HOCKEN were formally opened on Monday last by the Mayor, Corporation, and sanitary authority of Bolton. The treatment adopted is precipitation, and the daily amount of sewage to be dealt with is about 4,000,000 gallons. The cost of the works is £30,000.

ST. JOHN AMBULANCE ASSOCIATION.—A meeting was held at Frome on the 14th inst., at which, after an address by Captain Tucker, a resolution was carried to the effect that a centre of the Association be formed at Frome. About a hundred persons gave in their names as willing to become members.

THE MANCHESTER VOLUNTEER MEDICAL STAFF.—Under the direction of Acting Surgeons Crockwell and Coates, the above corps, which has been formed within the last few months, went through their drill in the presence of Col. Morley, who complimented the men on their efficiency and the surgeons on the result of the training which they had carried out.

ABERDEEN ROYAL INFIRMARY.—The plans for the proposed improvements of the infirmary sent in to the Committee of Management, have been remitted to the sub-committee with instructions to obtain the opinion of the medical staff and lady superintendent thereon, and to submit them to the architects, so that the committee may be in a favourable position to decide on the question.

SOUTH-EASTERN HOSPITAL.—By Dr. McCrombie's annual report of this institution it appears that during the past year 348 patients were treated in the fever wards, and 580 small-pox cases were admitted. Of the former (chiefly scarlet fever), 275 were discharged recovered and 30 died, 43 remaining at the end of the year. Three officers of the hospital contracted fever, but all recovered. Of the small-pox patients 184 died, a mortality of a little over 31 per cent.

THE DRAINAGE OF RICHMOND.—The Local Government Board are about to hold an inquiry at Richmond respecting the joint application of the vestry and rural sanitary authority for power to borrow £100,000 for the construction of works of main drainage for the parishes of Richmond, Barnes, Mortlake, Kew, and Petersham. It is intended to convey the sewage by gravitation to a site on the banks of the Thames at Mortlake, and treat it by precipitation.

MANCHESTER PATHOLOGICAL SOCIETY.—At the annual meeting of this Society, which was held at Owens College on the 13th inst., the following were appointed as officers for the ensuing year:—President: Dr. Dreschfeld. Vice-Presidents: Mr. A. W. Stocks and Dr. Dixon Mann. Treasurer: Dr. Judson S. Bury. Secretary: Dr. A. H. Young. Committee: Drs. H. Ashby, R. R. Hutton, T. C. Railton, T. W. Rhodes, T. Harris, and Mr. J. Broadbent. Auditors: Drs. S. H. Owen and W. Thorburn.

SOCIETY FOR RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.—On October 13th a quarterly Court of the Society was held at 53, Berners-street, the President, Sir James Paget, in the chair. One new member was elected, and the death of one reported. The treasurer announced the receipt of the legacy of £300 from the late Dr. Harvey K. Owen, a vice-president. It was resolved that, owing to the numerous fresh applications for grants made during the year, a Christmas present, such as had been made the last few years, could not be made this year to the widows and orphans on the books. Applications for relief were read from sixty-three widows, six orphans, and three orphans on the Copeland Fund, and a sum of £1313 was recommended to be granted at the next Court. One fresh application for relief was read from a widow, and a grant made. A grant towards the self-maintenance of an orphan was also made. Four orphans were reported as having ceased through age to be eligible for further grants.

BEST COP

AN UNSUSPECTED PERIL.—A gentleman living in the parish of Hornsey, who had complained repeatedly to the local board of bad smells in his house, had the unwelcome discovery revealed to him by the sanitary inspector that he and his family had been living for years over three large cesspools, one 25 feet deep, full of sewage. A striking though perhaps not astonishing fact in connexion with the matter is that the tenant of the house had frequently employed builders specially to supervise the drainage of the premises.

GLASGOW SOUTHERN MEDICAL SOCIETY.—At the business meeting of this Society, held on the 14th inst., the following gentlemen were elected office-bearers for the session 1886-87:—President: F. A. Freer, L.F.P.S.G. Vice-President: Edward M'Millan, L.R.C.S.Ed. Treasurer: T. J. Gilmour, L.R.C.P.E. Secretary: James Hamilton, M.B. Editorial Secretary: J. Erskine, M.A., M.B. Seal-keeper: W. J. Shaw, M.B. Court-Medical: Wm. Carr, M.B. (convener), J. Morton, M.D., R. W. Forrest, M.D., Alex. Napier, M.D., and J. Barras, M.D. Extra Councillors: D. N. Knox, M.A., M.B., Alex. Rankin, M.D., and Archd. Johnston, M.B.

MANCHESTER CENTRAL MEDICAL SOCIETY.—The annual meeting of this Society was held on the 19th inst., and the following office-bearers were elected:—President: Mr. F. H. Walmsley. Vice-Presidents: Dr. Leslie H. Jones and Dr. Sam. Woodcock. Treasurer: Dr. C. H. Braddon. Librarian: Dr. A. Wahltuch. Members of Committee: Dr. B. Addy, Mr. Wm. Armstrong, Mr. Wm. Bain, Dr. Wm. H. Barlow, Dr. H. W. Boddy, Dr. G. Bowman, Dr. S. Buckley, Mr. J. Ferguson, Mr. C. F. H. Kitchen, Dr. W. N. Maccall, Dr. F. M. Pierce, Dr. W. J. Sinclair, Mr. A. W. Stocks, Dr. Wm. Walter, and Mr. J. Westmorland. Auditors: Dr. A. Samelson and Dr. Thos. Smith. Secretaries: Dr. C. T. Railton and Dr. S. H. Owen.

CHARING-CROSS HOSPITAL STUDENTS' ANNUAL DINNER. On Friday, the 15th inst., the past and present students of Charing-cross Hospital held their annual dinner in the Venetian Saloon of the Holborn Restaurant. A hundred and fifty sat down to dinner, including the staff of the hospital school, past and present students, and visitors. Amongst the latter were Dr. Frederick Roberts, Mr. Cowell, Mr. Juler, Mr. Morton Smale, Dr. Ostlere, Walter Goodall (Bey), Mr. Scudamore, of *The Times* staff, and Dr. W. R. Smith. Mr. H. Corbould occupied the chair. Sir Guyer Hunter, M.P., K.C.M.G., in replying for the Army, Navy, and Reserve Forces, stated that a great many Charing-cross students had gone into the military services, and risen to the highest position, but especially had Charing-cross come lately to the front as being the birthplace of the new branch of the Volunteer Medical Staff Corps; a corps now 400 strong, all of whom are efficients. Dr. Bruce, the Dean of the School, stated that as long ago as three years active steps were taken by some members of the staff to promote residential chambers for students. He believed that the meetings then held were the initiation of the present acute phase concerning the subject. He commented also upon the fact that in the meantime a new operating theatre, an accident ward, and a new wing were being added to the hospital. Some excellent songs were given during the evening by Dr. Roberts, Dr. Mott, Dr. Ostlere, Mr. Reid, and Mr. Clavering Power. The social gathering proved most hearty and congenial.

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning at the latest.*

AUSTIN, THOMAS MEIN, L.R.C.P., L.R.C.S.Ed., has been appointed Health Officer for the Shire of East Loddon, Victoria.

BARTLETT, R. POPE, M.R.C.S., L.S.A., has been appointed Medical Officer for the Second Division of the Mere Union, vice Francis, resigned.

DEANE, EDWIN, L.F.P.S.Glas., L.S.A., has been appointed Assistant House-Surgeon to the Royal Berks Hospital, vice Barton, resigned.

HAWKES, L. A., M.B., M.Ch.Edin., has been appointed Assistant Resident Medical Officer to the Children's Hospital, Birmingham, vice Powell, resigned.

HILL, G. (WM., M.B., B.Sc.Lond., has been appointed Registrar and Pathologist to the Central London Throat and Ear Hospital,

JONES, H. C. W., B.A., M.B.Camb., M.R.C.S., L.S.A., has been appointed Senior Medical Officer to the Miller Hospital and Royal Kent Dispensary, vice Dr. J. B. Saundry, resigned.

LLOYD, DAVID, M.R.C.S., has been appointed Medical Officer of Health for the Shankiln Urban Sanitary District, vice Dabbs, resigned.

MORRIS, GEORGE, M.D., has been appointed Medical Officer for the Parish of Fenwick, Ayr.

NICHOLSON, H. GILBERT, M.R.C.S., L.S.A., late House-Surgeon to the Middlesex Hospital, has been appointed House-Surgeon to the Hereford General Infirmary, vice M. D.'O. Gillies, resigned.

POWELL, G. W., M.B., B.Ch., has been appointed Resident Medical Officer to the Children's Hospital, Birmingham, vice Payne, resigned.

RENDALL, PERCY, M.D., M.R.C.S., has been appointed Resident Medical Officer to the St. George's, Hanover-square, Dispensary, Little Grosvenor-street, W., vice Dr. Humphreys, resigned.

SIMPSON, DONALD, M.B., M.Ch.Glas., has been appointed Health Officer for the Shire of Oakleigh, Victoria.

STAVELEY, W. H. C., L.R.C.P., M.R.C.S., has been appointed Assistant House-Surgeon to St. Thomas's Hospital.

WALSH, JOHN THOS., L.K.Q.C.P.I., L.R.C.S.I., has been appointed Assistant Master to the National Lying-in Hospital.

WELLER, CHARLES JOSEPH, L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Frampton District of the Wheatenhurst Union, vice Watts.

YOUNG, EDWARD H., M.B.Dur., L.R.C.P.Lond., has been appointed Junior Medical Officer to the Miller Hospital and Royal Kent Dispensary.

Births, Marriages, and Deaths.

BIRTHS.

BUSS.—On the 19th inst., at 9, Broad-street, Leominster, Herefordshire, the wife of Howard D. Buss, M.R.C.S., L.S.A., of a daughter.

DUNSMURE.—On the 16th inst., at Queen-street, Edinburgh, the wife of Jas. Dunsmure, jun., M.D., of a daughter.

GANDY.—On the 15th inst., the wife of Wm. Gandy, M.R.C.S., L.S.A., of a daughter (stillborn).

GROUND.—On the 16th inst., at Gabriel's-hill, Maidstone, the wife of Edward Ground, M.D., of a son.

LAST-SMITH.—On the 17th inst., at Mayfield, Torquay, the wife of Edward Last-Smith, L.R.C.P.E., L.R.C.S.E., of a son.

RYLE.—On the 18th inst., at Doughty-street, W.C., the wife of R. J. Ryle, M.B.Oxon., M.R.C.S., of a daughter.

TAYLOR.—On the 16th inst., at Kennington-park-road, S.E., the wife of Herbert Taylor, M.B., of a son.

WISE.—On the 16th inst., at Walthamstow, Essex, the wife of C. H. Wise, M.D., of a son.

MARRIAGES.

BEATER—CUNNINGHAM.—On the 13th inst., at All Saints' Church, Eastbourne, Orlando P. Beater, M.D., LL.B., to Miss E. L. Cunningham, daughter of Surgeon Superintendent C. L. Cunningham, THE LANCET's late Special War Correspondent in the Soudan.

BINDLOSS—KELL.—On the 13th inst., at St. George's, Tufnell-park, Edmund F. Bindloss, M.R.C.S., L.R.C.P.Lond., of Hatcham, S.E., to Jessie M., youngest daughter of Thomas Kell, of Holmleigh, Tufnell-park, N.

BURDON—ENGLISH.—On the 9th inst., at Hope-street Church, John Burdon, L.R.C.P., L.R.C.S.Ed., of Newcastle-on-Tyne, to Rebecca, second daughter of Charles J. English.

CARTER—CARTWRIGHT.—On the 14th inst., at the Parish Church, Weston-super-Mare, by the Rev. F. E. Carter, Canon of Truro, assisted by the Rev. Prebendary Buckle and the Rev. G. Herbert West, Frederick Heales Carter, F.R.C.S.Eng., of Putney-hill, S.W., to Isabella Mary, eldest daughter of the late Henry Durancé Cartwright.

MALPAS—SHEPHERD.—On the 19th inst., Douglas Dent Malpas, M.D., of Biarritz, France, to Sarah Georgina Culme Shepherd, youngest daughter of the late R. W. M. Shepherd.

OZANNE—CATHCART.—On the 19th inst., at St. Mary's Church, West Kensington, by the Rev. P. F. Eliot, M.A., Canon of Windsor, cousin of the bride, assisted by the Rev. H. J. Alcock, M.A., Vicar, Frederic Newell Ozanne, L.R.C.P.Lond., M.R.C.S.Eng., of Harrowgate, son of the Rev. Thomas D. Ozanne, M.A., of Guernsey, to Fanny Lydia, daughter of the Rev. N. Cathcart, M.A., Vicar of Holy Trinity, Guernsey.

DEATHS.

CHARLTON.—On the 12th inst., at Brabourne, Ashford, Kent, Alfred Charlton, M.R.C.S., L.S.A., aged 43.

DENNETT JONES.—On Aug. 14th, at The Hall, Croydon, New South Wales, Robert Dennett Jones, L.R.C.P.Lond., M.R.C.S.Eng., of Bowral, N.S.W., aged 29.

DUNSMURE.—On the 16th inst., at Queen-street, Edinburgh, James Dunsmure, M.D., F.R.S., F.R.C.S.E.

EDWARDS.—On the 15th inst., at 98, Gloucester-crescent, Hyde-park, W., Mary Ann, the much loved wife of Thomas E. Edwards, L.R.C.P.Lond., M.R.C.S.Eng., L.M., aged 63.

HESK.—On the 3rd inst., Thomas Galland Charris Hesk, L.R.C.P., L.R.C.S., &c., late of Bradford, fourth son of the Rev. Thompson Hesk, aged 32. Interred at St. Martin's Church, Jersey.

SANDERS.—On the 17th inst., at the Haylands, Chigwell, Essex, Charles Sanders, M.D., in his 61st year.

N.B.—*A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.*

BEST COPY AVAILABLE

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, October 21st, 1886.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Max. Temp. Shade	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
Oct. 15	29·10	S.W.	58	57	...	59	46	·10	Raining
,, 16	28·62	S.	52	50	...	55	50	·15	Dull
,, 17	29·05	W.	50	49	...	55	48	·33	Cloudy
,, 18	29·40	N.	51	50	...	57	45	...	Foggy
,, 19	29·56	N.E.	53	52	...	57	50	·08	Overcast
,, 20	29·65	E.	54	53	...	59	51	...	Hazy
,, 21	29·69	W.	48	47	...	54	47	·02	Foggy

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news-paragraphs should be marked.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

We cannot undertake to return MSS. not used.

ANTIPYRIN IN PYREXIA.

BRIGADE-SURGEON J. B. HAMILTON, Medical Staff, Lucknow, communicates to the *Indian Medical Gazette* a paper on the above subject. His conclusions are that antipyrin is decidedly beneficial in reducing the temperature in cases of enteric fever, pneumonia, and insolatio. In a few cases the drug was given subcutaneously. In no case did it produce skin eruption or vomiting. It acts well in children; but he would hesitate to give it to debilitated patients.

Inquirer (Bucks).—1. No College of Surgeons admit a candidate to examination on the terms stated.—2. The licence is not accepted anywhere for the purpose named.

Una Sposa Inquista should consult her medical attendant. We do not prescribe.

"HEREDITY IN LOWER ANIMALS."

To the Editor of THE LANCET.

SIR,—In your issue of Sept. 25th you had a communication on the above subject from Mr. George A. Hawkins-Ambler; and as I can record a similar instance in the case of an animal still lower in point of intelligence than the dog, it may be interesting.

A kitten of only a few weeks old found its way through the garden into my house, and we gave it a home. When it was apparently about three months old it commenced spontaneously to sit up and beg for food at the table. If no notice were taken, it would rise fully up on its hind feet, touching, but not supporting itself by, the arm of someone from whom it expected food. As it had never been taught, we supposed the trick to be the result of heredity. It was much more explicable, and infinitely more amusing, when our foundling had a small family, which, at the age of about two months, ranged themselves alongside of her at the side of the table in her comical attitude.

I am, Sir, yours faithfully,

Newcastle-on-Tyne, Oct. 6th, 1886. G. WEDDELL.

A CAUTION.

A CORRESPONDENT writes:—"A man apparently between forty and fifty, of good address, speaks French fluently, has an Anglo-American aspect and accent, and says he hails from Paris, has been disposing of instruments which have evidently been stolen from London hospitals, and possibly from private practitioners. Any information regarding him will be thankfully received at Scotland Yard."

E. C.—Messrs. Coxeter sell a call-bell worked by a dry silver-chloride element which would probably meet our correspondent's views.

W. H. (Strand).—Grateful patients are not always prudent.

Prof. G. Buchanan.—Yes.

BRITISH NORTH BORNEO.

A WRITER in *Medical Missions at Home and Abroad* for October, speaking of British North Borneo as an unoccupied mission field, says:—

> "If no single branch of the Church is ready to adopt this field, surely there are individual Christians who might well devote themselves to it, and to whom it would be a special attraction that they would find in it a virgin field for their labours. The natives are Dyaks, Malays, and Chinese. A friend who knows Borneo suggests that mission work might be commenced at Sandakan, where the British merchants reside, and that itinerations by boat and overland might be made to Kudat, Gaya-Papar, Kimanis, down to Labuan. Two men of good constitution, able and willing to endure hardships for Christ's sake, would find noble work ready for them. One of them should be a medical missionary. The Malay language, with a few local idioms, is in ordinary use. The Chinese, as yet, are confined to the coast-line. The interior is accessible by boat for long distances. The climate is said to be excellent. Sandakan is free from fever, and has many of the comforts of life; so that there would be no disadvantage, but the contrary, in one or both of the missionaries being married."

Mr. A. B. Clarke.—We have examined the "tasteless" comfits; they only merit the adjective if swallowed whole. We have no experience of their therapeutic or dietetic value, but should be inclined to think that they would be inferior to gelatine capsules containing a drachm or half a drachm of the oil each.

Mr. J. S. Belcher.—The address has unfortunately been mislaid.

Mr. J. B. Clibborn's paper is marked for insertion.

Dr. Josiah Williams.—Yes, if not suitable.

CASE OF SUICIDE IN SHEFFIELD.

To the Editor of THE LANCET.

SIR,—Will you oblige me by inserting in your journal the following statement, with reference to a report circulated in Sheffield detrimental to my own reputation and that of the gentleman whose *locum tenens* I was.

On September 2nd I was called early, while acting for Dr. A., to see Mr. B., living in the west-end of Sheffield. I found him suffering from extreme nervous irritability, together with some depression; his pulse being 140 and his manner very irritable and restless. I injected in his arm one-twentieth of a grain of sulphate of hyoscyamus, and wrote a prescription containing bromide of ammonia, &c., and left the patient in the dining-room and went to Mrs. B. in the drawing-room, and advised that the patient should be induced to go to bed, an ice-bag applied to the head, light, unstimulating diet only to be taken, and urged the attendance of a trained nurse. A lady friend who was there pooh-poohed the idea of a nurse. I asked Mrs. B. to return to her husband and I would give directions to her friend. Mrs. B. returned to the dining-room and immediately screamed loudly. I ran into the room and found Mr. B. cutting his throat with a champagne-knife. I closed with him, and a desperate struggle ensued for the possession of the weapon, and also in the attempt to throw down the patient, a powerful man of about forty years of age. The struggle lasted some three or four minutes, when I succeeded in tripping him. I then called for assistance, saying, "Send some men. Don't you see I cannot hold him?" Two grooms arrived and secured him, and tied his hands and feet. I then said, "Send for my pocket surgical case and bring another surgeon." The latter arrived, in the person of Mr. C., who commenced by saying we must send for his own medical man. I said, "I am his medical man, or am acting for Dr. A., who is." Mr. C. answered, "Oh no he is not, Dr. D. is." I replied, "While you are talking the patient may be dying;" and then, upon his wishing to take the principal place, I said, "I am quite capable of attending a cut-throat; I only wish you to tie the bloodvessels as I pick them up." Mr. C., having rendered the necessary assistance, left the room and gave orders for a bed to be prepared upstairs. But as the patient lost a good deal of blood, having cut from just below the right ear to an inch to the left of the median line, I told him I thought I was the person to give orders, and certainly should not allow him to be carried up a steep staircase and round an awkward corner, which would probably cause fainting to ensue, but would, for the present, have a bed made in the dining-room. I then went to assure Mrs. B. of my belief in her husband's ultimate recovery. Mr. C. volunteered to send me a nurse, as I was a stranger in Sheffield, and then left. I tried to clean the blood from my clothing, and then desired a servant to ask Mrs. B. if I could speak to her before leaving. The servant informed me Mr. C. would carry on the case, and when Mrs. B. appeared she said as Dr. A. was away and they did not wish to again change the surgeon, Mr. C. would continue the treatment, and asked would I meet him. I replied, "No, I will not." I did not wish to act second where I had been principal. I then left, having been in the house nearly three hours, and went home to take my breakfast and see patients. I find a report has been circulated that Dr. A., when called in, fainted, and was utterly useless, and therefore Mr. C. was sent for. But as Dr. A. was at Pitlochrie in Scotland, this, of course, was utterly untrue, and allow me, for myself, to give it an unqualified denial.

The case is worth noting as the wound was done with the right hand, commencing just below the ear (right), and was carried across the median line to the left, and was not, as one would have expected from the character of the wound, done with the left hand.

Believe me, Sir, faithfully yours,

Oct. 11th, 1886. VIATOR.

BEST COPY

THE PATENT MEDICINE MONOPOLY.

THE *Anti-adulteration Journal* (Philadelphia) makes the following statement:—"An Eastern patent medicine firm has just contracted for $300,000 worth of printing for this year. This will be used in the papers to inflame the public mind and cause the masses to doctor simple and imaginary ills. Deluded people will be forced to pay many times this $300,000. Many will not only pay with money, but health, and even life."

Mr. H. B. Collins.—We think the representation should be made to the editor of the paper in which the article appeared.

ALLEGED ABUSE OF HOSPITALS.

To the Editor of THE LANCET.

SIR,—Now that the general practitioners have at last a prospect of their interests being looked after, I think everyone who intends to vote at the coming election (London practitioners in particular) should insist on their representative faithfully promising to use his best endeavours to put a check upon the enormous amount of gratuitous advice and medicine given at the various London hospitals to people who are perfectly well able to pay the moderate fees charged by most practitioners in the metropolis. No discrimination seems to be made, but aid is given to all comers; and I venture to say I am not far wrong in stating that two-thirds of the applicants have no business at the hospital at all. In my own neighbourhood—that of Chelsea—we are surrounded by hospitals of all denominations, and it is a daily occurrence to find one's patients flocking off to one of these institutions, where they obtain advice and medicine free; and so the practitioner is cheated out of his fee, with the result that his books show a balance on the wrong side at the end of the year. Two or three of the hospitals make a practice of selling tickets for 6*d.* or 1*s.* each—competing, in fact, with the bogus dispensaries with which London is inundated. This state of things ought not to be. If hospitals professing to be supported by voluntary contributions exact a paltry payment from patients, and set an example for the existence of so-called "provident dispensaries," to the discredit of the profession and the detriment of the public, the sooner the subscribers are made acquainted with the fact the better. Working up a practice has always been a difficult and a tedious task; but it is now trebly so to the young and struggling practitioner, who finds hospitals in all directions eager to receive his patients at a rate a counter prescribing chemist would scorn. The cause of want of funds is not far to seek. Let the authorities of the various hospitals make careful inquiry into the position and means of every applicant for relief, and they will find their expenses for drugs, &c., very much reduced at the end of the year. I can instance several well-to-do tradespeople who regularly attend the hospitals in this neighbourhood, and thus defraud the practitioners around of their just dues. I trust all London practitioners will make a determined stand against this gross injustice, and do their utmost to remedy the evil. This is an age of co-operation; and now is a most fitting time for us to pull together.

I remain, Sir, yours faithfully,

Oct. 12th, 1886. JUVENIS.

*** The views of our correspondent deserve publicity, even if they are somewhat open to doubt. He is under some delusion in thinking that any power resides in the Medical Council to control the amount of gratuitous advice given at hospitals. Even the Direct Representatives, of whom many impossible things are expected, will not be able to bring the correction of hospital abuse within their functions as prescribed by Act of Parliament. The existence or otherwise of such abuse is a most important question. So also is the system of charging small sums for hospital or dispensary letters. This was meant really to check the abuse of the out-patient system; but it is liable to be misunderstood and to be abused. The important question, and one which is constantly being raised, is, What is the amount of such abuse? Our correspondent says that two-thirds of the applicants (out-patients, we presume) have no business at the hospital at all. What is wanted is a severe investigation of fitness of cases at the hospital itself. For people with any means it is really a very wasteful way of getting medical attention. The time spent—often, as we know, five or six hours,—the unselect company, the risk of infectious disease, &c., would make any sensible person with a shilling or two to spare think twice before preferring the out-patient room of a hospital to the waiting-room of a private practitioner. Then it is known that very little of the money of hospitals goes to the out-patient department. In a time of depression it must be allowed that some decent people with long and chronic complaints have more or less excuse for seeking the aid of a charitable institution, which, *if properly used*, does neither disable nor disincline a person to pay and employ his own individual adviser.—ED. L.

"SISTER DORA."

IN reference to a paragraph headed as above, published in our last number, a correspondent writes to say that the Town Council of Walsall did *not* ultimately accept the offer of Miss Lonsdale.

Dr. A. W. Dowding.—The two titles seem fairly to attach to the qualifications mentioned.

ALCOHOL IN HOSPITALS.

Vigilans.—We have read our correspondent's letter with attention. He strongly thinks that in view of the state of medical opinion on alcohol, and the non-necessity for it in healthy persons, the use of it in hospitals, at least by the staff, should be discountenanced; and he ends his letter by the suggestion of an excuse for charitable persons declining to subscribe to hospitals where such use of alcohol is permitted. The writer is too benevolent in name and fame to have any fear of his motives in so writing; though some people, we confess, are rather too clever in finding reasons for neglecting the obvious duty of liberal subscriptions to hospitals. We regret that the question of the use or non-use of alcohol for the staff of hospitals should be made an argument for or against hospital support. Teetotalers do not conciliate moderate men by such tactics. There is a strong tendency towards disallowance of alcoholic drinks in all kinds of service. Nurses and hospital officials should be left to the responsible authorities of hospitals in this matter, and the latter have every inducement to keep the expenditure on alcohol down. They have the authority of the best physicians and surgeons for using it sparingly; but it will be magnanimous in teetotalers not to worry them and not to give the public excuses for withholding subscriptions. They have their own special hospital in which to demonstrate the possibility of curing disease without alcohol. Let them have a little more faith in this quiet influence, and try to make the demonstration more complete.

Inquirer.—The registered practitioner who without a surgical qualification got a surgical appointment with salary attached is in a false position. The claim to his salary cannot be enforced in a court of law, and he is liable to prosecution should he use the title not implied in his qualification. One of the uses of general practitioners in the General Medical Council will be to stir up the Council to more diligent employment of its powers, or to stimulate the licensing bodies to defend from misuse the titles they confer. Our correspondent is aware that under the new Act no qualifications will be granted which do not cover all branches of practice.

Mr. H. C. Fox.—"Vital Statistics," by Dr. William Farr, F.R.S., was published by subscription by the Sanitary Institute at 74*a*, Margaret-street, W. The subscription price was one guinea.

A. W. B.—Barley water.

FALSE TESTIMONIALS.

To the Editor of THE LANCET.

SIR,—In the interest of the public, and especially of those responsible for the management of medical and surgical charities, I think it right to caution your readers against a woman, about thirty years of age, who has recently applied to the matron of the Gravesend Hospital for a nurse's situation. She produced what purported to be a copy of a flattering testimonial given to her by me, in which it was stated that she had been twelve months in this institution. As a matter of fact, she was in this hospital for three months only, and was then dismissed without a testimonial. The ease with which false testimonials can be manufactured renders it imperatively necessary in all cases to verify the applicant's statements by inquiry from the persons by whom testimonials are professedly signed.—I am, Sir, yours faithfully,

EMILY GRIFFITHS, Matron.

Southport Infirmary and Local Dispensary, Virginia-street, Oct. 20th, 1886.

THE ANTI-VACCINATIONISTS AND SIR JAMES PAGET.

Cantab. complains that in the neighbourhood of Colchester they are troubled with an anti-vaccinationist who prejudices people against vaccination by quoting isolated expressions from the works of Sir James Paget and others. The following expression is quoted as giving the opinion of Sir James on vaccination:—"That vaccination produces a continued unhealthy condition of the blood." Probably the person who quotes this expression knows that in doing so he is giving an incorrect impression of Sir James Paget's opinion. But anti-vaccinationism would die to-morrow if it were not kept alive by garbled and distorted statements. The expression quoted is taken from a lecture on dissection-poisons in the "Clinical Lectures and Essays." The misuse of it by anti-vaccination fanatics has fortunately been noticed by Sir James Paget himself. Our correspondent will find in the second edition of the "Clinical Lectures and Essays" the following note to the sentence:—"Some opponents of vaccination have used this and similar expressions in my lectures on pathology as if they implied a mischief in vaccination. None but a silly or dishonest person could so use them; but, with a very few strange exceptions, it is only by such persons as these that vaccination is opposed." *Cantab.* will know how to use this note. But do not let him be too sanguine of any result on anti-vaccinationists. Mr. Pepper is not, any more than Sir James Paget, an opponent of vaccination.

A Seeker after Knowledge.—1. We never heard of reference being made to the husband in such a case.—2. In the British Isles the life of the mother is made the first consideration.

Dr. Lecers.—In an early number.

EST COPY AVAILABLE

COMMUNICATIONS, LETTERS, &c., have been received from—Mr. Edmund Owen, London; Dr. Pavy, London; Dr. Steele, London; Dr. Martin Oxley, Liverpool; Dr. A. Robertson, Glasgow; Dr. Alfred Carpenter, Croydon; Dr. Collingridge, London; Mr. Cantile, London; Mr. H. B. Hewetson, Leeds; Mr. Bury, New Barnet; Messrs. Calvert and Co.; Mr. H. B. Collins, Vienna; Dr. Illingworth, Clayton; Mr. Lawson Tait, Birmingham; Mr. H. Bramwell, Newcastle-on-Tyne; Mr. Noble Smith, London; Dr. R. Drury, Birmingham; Dr. W. S. Playfair, London; Dr. Collins, Nottingham; Mr. J. C. Snowden; Mr. Percy Dunn, London; Mr. L. Humphry, Cambridge; Dr. J. F. Edwards, Philadelphia; Mr. W. Tallack, London; Dr. Dunlop, Glasgow; Mr. P. Dolman, Scarborough; Prof. Frankland, London; Dr. Shuttleworth, Lancaster; Dr. Fairbank, Doncaster; Mr. Grimsdale; Dr. Josiah William, Sheffield; Messrs. R. & S. Livingstone, Edinburgh; Mr. R. Moss, London; Mr. Spurgin, Maryport; Dr. Dowding, Bournemouth; Dr. Paterson, Boston; Mr. J. G. Barford, Wokingham; Mr. Thos. Walker, Wakefield; Mr. Bourne, Llandudno; Messrs. Maclachlan and Co., Edinburgh; Mr. Holder, Manchester; Dr. A. T. Thomson, Glasgow; Mr. W. T. Grant, London; Mr. Patterson; Messrs. Davis and Co., Aberdare; Mr. J. W. Hope, Fremantle, W.A.; Mr. Vickers, London; Mrs. Wells, Lincoln; Mr. Burdett, London; Dr. S. King, Ilfracombe; Mr. Hawkes, Northampton; Mrs. Saunders, Tunbridge Wells; Mr. Moss, Exeter; Mr. Campbell, London; Messrs. Robertson and Scott, Edinburgh; Mr. Forster, Worcester; Mr. McDonald, New Abbey; Mr. Dylen, Fareham; Mrs. Pullock, Bath; Messrs. Benjamin and Sons, London; Dr. Jackson, Carnforth; Messrs. Smith, Elder, and Co., London; Dr. Taaffe, Brighton; Mr. Bradshaw, Notts; Mr. A. Haviland, London; Mr. Blackett, London; Messrs. S. M. Minasian and Co., Galata; Dr. Drummond, Newcastle-on-Tyne; Messrs. Mason and Co., Chelsea; Mr. Hawkins-Ambler, Kirkburton; Mr. Knowsley Thornton, London; Mr. E. Cotterell, Bicester; Messrs. Richardson and Co., Leicester; Mr. J. R. Keele, Chichester; Messrs. Asher and Co., Guildford; Mr. Laffan, Cashel; Dr. Horrocks, London; Mr. John Brown, Burnley; Mrs. E. Griffiths, Southport; Messrs. Goddard and Co., Nottingham; Mr. Balgarine, London; Dr. Young, Manchester; Mr. Wheeler, Manchester; Mr. Godfrey, Northampton; Mr. Simeon Snell, Sheffield; Mr. Webb, Bury; Mr. Birchall, London; Mr. Reginald Harrison, Liverpool; Messrs. Wright and Co., Bristol; Dr. J. W. Taylor, Scarborough; Mr. A. J. Harvey; Secretary, Dulwich; A Young Practitioner; A Seeker after Knowledge; Traditus; L., London; H. A., Barnes; M.D., Gower-street; One of the Number; The Melton Chemical Company.

LETTERS, *each with enclosure*, are also acknowledged from—Dr. Murray, Cork; Dr. Creed, Greenwich; Mr. Swainson, Bolton; Dr. Campbell, Alfreton; Dr. Moullin, London; Dr. Merlin, Sutton; Dr. Edwards, Hyde-park; Mr. Crowsdale; Dr. Benton, London; Messrs. Steel and Jones, London; Messrs. Lee and Martin, Birmingham; Mr. Brodie, Bucklyvie; Dr. Wise, Walthamstow; Mr. Allsop, Shipley; Dr. Buss, Leominster; Mr. Harding, Loughboro'; Mr. Laskey, Hambrook; Mr. Willmore, Walsall; Miss Galloway, Denny; Messrs. Kuhnez and Co., London; Dr. Harding, Whittlesea; Mr. Raftes, Bootle; Mr. Yates, Halifax; Mr. Lovelist, Stockbridge; Mrs. Wells, Bailgate; Dr. Heelas, Bonchurch; Mrs. Gentel, Edinburgh; Miss Turner, Bournemouth; J. W. C., Bristol; M.D., Montgomery; Yorkshire; M. V. M.; Aoe, Edinburgh; Medicus, Swinton; A. C. K.; Alpha; J. C., Wye; F. B., Lincoln; A. A. H.; Robertus, Edinburgh; Nero; J. A. G.; M. C. S., St. John's Wood; O. F., London; M.D., Manchester; J. A. N., Nottingham; M.A., Cambridge; D. M.; H. R. M.; M.B.Lond., Nottinghill; Alpha, Reading; B. S. C.; Alpha, Carnforth; Gemini; Eagle's House, Tottenham; Nemo, Seaforth; T. P. S.; A.B.; Medicus, Salford.

Waterford Chronicle, The Journalist, Somerset and Wilts Journal, Isle of Wight County Press, Liverpool Courier, Maryport News, West Cumberland Times, Burnley Express, &c., have been received.

Medical Diary for the ensuing Week.

Monday, October 25.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10.30 A.M., and each day at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.
ST. MARK'S HOSPITAL.—Operations, 2 P.M.; Tuesdays, same hour.
CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 3 P.M.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITALS.—Operations, 2 P.M., and each day in the week at the same hour.
PARKES MUSEUM OF HYGIENE.—8 P.M. Mr. J. F. J. Sykes: Nature of Nuisances, including Nuisances the Abatement of which is Difficult.
MEDICAL SOCIETY OF LONDON.—8.30 P.M. Clinical Evening. Dr. C. T. Williams: (1) A case of Partially-cured Aneurysm; (2) Abnormal Condition of the Subclavian Artery.—Mr. E. Hurry Fenwick: Pouch of Penile Urethra.—Mr. William Adams: Couch for Treatment of Lateral Curvature; and other cases.

Tuesday, October 26

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Mondays at 1.30 and Thursdays at 2 P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.
CANCER HOSPITAL, BROMPTON.—Operations, 2.30 P.M.; Saturday, 2.30 P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—8.30 P.M. Dr. Gervis: A case of Extra-uterine Gestation.—Mr. Knowsley Thornton: On Three Hundred additional cases of Complete Ovariotomy and Twenty cases of Exploratory Operation.

Wednesday, October 27.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour. Ophthalmic Operations, Tuesdays and Thursdays, 1.30 P.M.
ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Skin Department, Mondays and Thursdays, 9.30 A.M.
ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.
LONDON HOSPITAL.—Operations, 2 P.M.; Thursday & Saturday, same hour.
GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Saturday, 2 P.M. Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.
KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.; and on Friday, 2 P.M.; and Saturday, 1 P.M.
HUNTERIAN SOCIETY.—8 P.M. Dr. Lewers: On the Advantage of Preliminary Dilatation of the Urethra in certain cases of Supra-vaginal Amputation of the Cervix Uteri.—Dr. Turner: Specimen of Cerebral Tumour.
PARKES MUSEUM OF HYGIENE.—8 P.M. Dr. Charles Kelly: Sanitary Law—General Enactments, Public Health Act, 1875, Model Bye-laws.
BRITISH GYNÆCOLOGICAL SOCIETY.—8.30 P.M. Specimens will be shown by Dr. Fancourt Barnes, Dr. Bantock, Dr. Mansell Moullin, and others.—Mr. Lawson Tait: Extra-peritoneal Cysts.

Thursday, October 28.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Surgical Consultations, 1.30 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
NORTH-WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

Friday, October 29.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1.30 P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
PARKES MUSEUM OF HYGIENE.—8 P.M. Mr. A. Wynter Blyth: Metropolitan Acts, Bye-laws of Metropolitan Board of Works.

Saturday, October 30.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.

SUBSCRIPTION.

POST FREE TO ANY PART OF THE UNITED KINGDOM.

One Year	£1 12 6	Six Months	£0 16 3
To CHINA AND INDIA		One Year	1 16 10
To THE CONTINENT, COLONIES, AND UNITED STATES		Ditto	1 14 8

Post Office Orders should be addressed to JOHN CROFT, THE LANCET Office, 423, Strand, London, and made payable at the Post Office, Charing-cross.

Notices of Births, Marriages, and Deaths are charged five shillings.

Cheques to be crossed "London and Westminster Bank."

ADVERTISING.

Books and Publications (seven lines and under)		£0	5 0
Official and General Announcements		0	5 0
Trade and Miscellaneous Advertisements		0	4 6
	Every additional Line	0	0 6
Front Page	per Line	0	1 0
Quarter Page		1	10 0
Half a Page		2	15 0
An entire Page		5	5 0

The Publisher cannot hold himself responsible for the return of testimonials, &c., sent to the office in reply to advertisements; copies only should be forwarded.

NOTICE.—Advertisers are requested to observe that it is contrary to the Postal Regulations to receive at Post-offices letters addressed to initials only.

An original and novel feature of "THE LANCET General Advertiser" is a special Index to Advertisements on page 2, which not only affords a ready means of finding any notice, but is in itself an *additional* advertisement.

Advertisements (to ensure insertion the same week) should be delivered at the Office not later than Wednesday, accompanied by a remittance.

Answers are now received at this Office, by special arrangement, to Advertisements appearing in THE LANCET.

Terms for Serial Insertions may be obtained of the Publisher, to whom all letters relating to Advertisements or Subscriptions should be addressed.

Advertisements are now received at all Messrs. W. H. Smith and Son's Railway Bookstalls throughout the United Kingdom and all other Advertising Agents.

Agent for the Advertising Department in France—J. ASTIER, 66, Rue Caumartin, Paris.

BEST COPY A